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## ADJUSTING A CARBON PRICE AT THE BORDER

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### INTRODUCTION

Economists from across the political spectrum support a carbon tax as the most efficient means to reduce greenhouse gas emissions. Not all carbon taxes are created equal, however. For a carbon tax to function properly, there are certain design questions that must be addressed. Previous R Street research has made the case for a revenue-neutral carbon tax; one that would pre-empt regulation of greenhouse gases by the Environmental Protection Agency (EPA); and that would use revenue from the emissions fee to offset cuts to more economically harmful taxes, particularly those on capital. This paper focuses on another issue related to carbon-tax design: how to deal with imports from and exports to other nations that do not have an equivalent carbon price.

Specifically, this paper examines how a carbon tax could be border adjusted to increase its effectiveness, even as it limits the economic costs. Under a border-adjusted carbon tax, imports to the United States from countries without a carbon price would be taxed as if they had been produced locally. By contrast, American exports to countries lacking a carbon price would be refunded the implicit amount of tax used to produce those products. Properly designed, a

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border-adjusted carbon tax removes the competitive international disadvantage that otherwise could plague a nation that decides to institute its own carbon price and reduces the risk of carbon "leakage" to nations without effective carbon policies.

### WHY DOES BORDER ADJUSTMENT MATTER?

A border-adjusted carbon tax would extend to all domestic trade and thus improve the economic and environmental rationale for a domestic carbon policy. The policy would impose the very same tax on imports as on domestically produced goods, which eliminates any advantage for free riders. It could also be used to refund the costs of the domestic carbon policy on exports, which would help to keep U.S. firms on a level playing field in global markets. Such adjustments are crucial to development of a carbon policy that is both economically and environmentally sound.

Any policy to limit greenhouse gas emissions necessarily increases the costs of carbon dependency, and this prompts concern about the competitiveness of U.S. industries. For example, when the U.S. Senate rejected the Kyoto Protocol in 1997, it expressed concern that: "the disparity of treatment between [developed] and Developing Countries [...] could result in serious harm to the United States economy, including significant job loss, trade disadvantages, increased energy and consumer costs, or any combination thereof."<sup>1</sup>

1. Senate Resolution 98 (1997).

Moreover, stringent carbon policies can result in emissions “leakage,” or the shift of emissions from a country with strong carbon controls to one with no formal policy or a relatively relaxed one. While assumptions of such leakage rates vary, accepted estimates range between 5 percent and 20 percent.<sup>2</sup>

No policy toward greenhouse gas emissions should either threaten U.S. industry or increase global emissions. Appropriately designed policy that incorporates border adjustment can successfully avoid these specific undesirable outcomes. By applying the very same carbon policy to imported products, the border-adjusted carbon tax similarly induces other nations to account for and reduce their carbon emissions.<sup>3</sup>

The United States is unique among Organization for Economic Cooperation and Development (OECD) nations because it does not substantially rely on a value-added tax or equivalent form of destination-based consumption tax. The result is that U.S. companies engaged in international trade are taxed twice: once at home and again abroad.<sup>4</sup> This imbalance recently has been a focus in discussions related to comprehensive tax reform,<sup>5</sup> although Republican leaders in the U.S. House more recently have confirmed that a border-adjustment tax (BAT) approach will not be included in the tax-reform package Congress soon will consider.<sup>6</sup> Under a BAT approach, domestic firms would be taxed based on their domestic income, but not their foreign income, and could continue to deduct from their income the cost of domestically procured goods and services, but not the cost of goods and services procured from abroad.

Border adjustment poses significant concerns in some markets, particularly in the area of financial services. Such concerns are illustrative of why most countries that employ a VAT exempt financial services transactions from its impact. In banking, there is inherent difficulty in calculating what portion of interest income constitutes “value added,” separate from the risk-free interest rate and premium for risk of default. In insurance, there is a similar problem in determining what portion of underwriting income constitutes

“value added,” separate from the discounted present value of expected future benefits and any risk premium. R Street previously has published extensive research highlighting the negative effects a BAT would have on international reinsurance markets, and the costs and dislocations that would hurt U.S. consumers of both life insurance<sup>7</sup> and property and casualty insurance<sup>8</sup> from failing to exempt cross-border reinsurance transactions from the scope of any such tax.

Indeed, there are significant costs to the implementation of any border adjustment, which could include potentially inefficient barriers to trade, the looming threat of trade protectionism, the costs of the system’s operation and, of course, the threat of a challenge under the World Trade Organization (WTO).<sup>9</sup>

Nevertheless, political conversation internationally continues to focus on whether all countries pull their weights to address the global climate challenge<sup>10</sup> and therefore, future approaches to carbon policy will likely rely on some measure of border adjustability. Accordingly, this paper identifies the most relevant provisions of international trade law, examines the jurisprudence and suggests a pathway for a compliant border-adjustment system relevant to the revenue-neutral carbon price advanced by the R Street Institute.

It also is important to note that, as R Street’s proposal for a domestic revenue-neutral carbon price suggests using the revenues to eliminate the corporate income tax completely, a border-adjusted carbon tax is conceptually distinct from the BAT, which is expressly a system of determining what revenues and expenses to include in calculating the corporate income tax.

## WTO LAW AND PRECEDENT

International trade law is governed by the rules of the WTO, the intergovernmental body that regulates international

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2. Ogunlade, Davidson, et al., Climate Change 2001, *Working Group III: Mitigation*, Intergovernmental Panel on Climate Change, Ch. 4.6.2, 2001. <https://www.ipcc.ch/ipccreports/tar/wg3/>.

3. Aaron Cosbey, Susane Droegge, et al., “A Guide for the Concerned: Guidance on the elaboration and implementation of border carbon adjustment,” International Institute for Sustainable Development, *Entwined Policy Report 03*, November 2012. <http://www.iisd.org/library/guide-concerned-guidance-elaboration-and-implementation-border-carbon-adjustment>.

4. Gordon Gray, “Tax Topics – Destination Vs. Origin Basis,” American Action Forum, June 24, 2016. <https://www.americanactionforum.org/insight/tax-topics-destination-vs-origin-basis/>.

5. Kyle Pomerleau and Stephen Entin, “The House GOP’s Destination-Based Cash Flow Tax, Explained,” The Tax Foundation, June 30, 2016. <https://taxfoundation.org/house-gop-s-destination-based-cash-flow-tax-explained/>.

6. Jacob Pramuk, “Republicans scrap border adjustment from tax reform plan,” CNBC.com, July 27, 2017. <https://www.cnbc.com/2017/07/27/top-republicans-behind-tax-plan-say-border-adjustment-tax-is-dead.html>

7. Lars Powell, Ian Adams and R.J. Lehmann, “Effects of BAT on life insurance and annuities,” R Street Institute, June 2017. <http://www.rstreet.org/wp-content/uploads/2017/06/100.pdf>

8. See the R Street Institute publications: Lars Powell, Ian Adams and R.J. Lehmann, “Impact of a border-adjustment tax on the Texas insurance market,” April 2017. <http://www.rstreet.org/wp-content/uploads/2017/04/93.pdf>; Powell, Adams and Lehmann “Impact of a border-adjustment tax on the Louisiana insurance market,” May 2017. <http://www.rstreet.org/wp-content/uploads/2017/05/94.pdf>; Powell, Adams and Lehmann “Impact of a border-adjustment tax on the North Carolina insurance market,” May 2017. <http://www.rstreet.org/wp-content/uploads/2017/05/95.pdf>; Powell, Adams and Lehmann “Impact of a border-adjustment tax on the California insurance market,” July 2017. <http://www.rstreet.org/policy-study/impact-of-a-border-adjustment-tax-on-the-california-insurance-market/>.

9. Joost Pauwelyn, “U.S. Federal Climate Policy and Competitiveness Concerns: The Limits and Options of International Trade Law” *Nicholas Institute Working Paper 07-02*, April 2007. <https://nicholasinstitute.duke.edu/sites/default/files/publications/u.s.-federal-climate-policy-and-competitiveness-concerns-the-limits-and-options-of-international-trade-law-paper.pdf>.

10. Office of the Press Secretary, “Statement by President Trump on the Paris Climate Accord,” The White House, June 1, 2017. <https://www.whitehouse.gov/the-press-office/2017/06/01/statement-president-trump-paris-climate-accord>.

trade and arbitrates disputes among the 163 member nations. Any border-adjusted carbon tax design must be consistent with WTO guidance and must include key provisions of the General Agreement on Tariffs and Trade (GATT), Agreement on Technical Barriers to Trade (TBT Agreement) and the Agreement on Subsidies and Countervailing Measures (SCM Agreement).<sup>11</sup> While legal scholars have identified these as the pivotal provisions, no border-adjusted carbon or fuel tax has yet been tested at the WTO.

### General Agreement on Tariffs and Trade (GATT)

The GATT preamble asserts that its goal is the, “substantial reduction of tariffs and other trade barriers and the elimination of preferences, on a reciprocal and mutually advantageous basis.”<sup>12</sup> This is achieved through instruments that equalize both trade opportunities and general treatment across and between countries. Two obligations of particular relevance are the “most-favored nation” and “national treatment” models.

The most-favored nation provision stipulates that any, “advantage, favor, privilege or immunity” granted to the imports of one country, “shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.”<sup>13</sup> Put more simply, it stipulates that imports from all member nations be treated equally. Of consequence to a domestic carbon policy is the definition of “like product” and whether products can be differentiated according to their carbon content.

Article III details rules regarding “national treatment” and establishes a mandate that imports cannot be treated less favorably than domestically produced goods. Imports cannot face charges or regulations—or, in this context, a carbon price—that place them at a disadvantage compared to domestically produced products. Additionally, Article II permits “a charge equivalent to an internal tax.”<sup>14</sup> Thus, Articles II and III both permit a border-adjusted carbon tax on an import as long as it is imposed on “like” products and does not exceed the equivalent domestic tax.<sup>15</sup>

11. See WilmerHale, “Climate Change and the WTO: A Comparative Analysis of Cap-and-Trade, Carbon Tax and Hybrid Approaches,” April 9, 2010; and Ross Astoria, “Design of an International Trade Law Compliant Carbon Border Tax Adjustment,” *Arizona Journal of Environmental Law & Policy* 6:491 (December 17, 2015). <http://www.ajelp.com/articles/design-of-an-international-trade-law-compliant-carbon-border-tax-adjustment/>.

12. World Trade Organization, *The General Agreement on Tariffs and Trade* (GATT), July 1986. [https://www.wto.org/english/docs\\_e/legal\\_e/gatt47\\_e.pdf](https://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf).

13. *Ibid.*, Art. I.1.

14. *Ibid.*, Art. II.2(a).

15. Article II is relevant for a BTA devised as a charge imposed upon imports; Article III for a BTA devised as a charge upon resale of the product domestically. The provisions are similar, but distinct. See Jennifer Hillman, “Changing Climate for Carbon Taxes: Who’s Afraid of the WTO?” The German Marshall Fund of the United States, July 2013. <http://www.gmfus.org/publications/changing-climate-carbon-taxes-whos-afraid-wto>.

However, the GATT also allows “general exceptions” to the above provisions under Article XX, which allow WTO members to stray from GATT rules under specific circumstances. Of particular relevance to a border-adjusted carbon tax are paragraphs (b) (“necessary to protect human, animal or plant life or health”) and (g) (“relating to the conservation of exhaustible natural resources”).<sup>16</sup> While it is clear that the science behind a border-adjusted carbon tax could fall under either exception, what is more challenging is compliance with the Article XX “chapeau” which stipulates, “that such measures are not applied in a manner which would constitute a means of arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.”<sup>17</sup> Very few cases have satisfied these twin requirements of the chapeau.<sup>18</sup>

### Agreement on Technical Barriers to Trade (TBT)

The TBT stipulates that regulations and standards, “do not create unnecessary obstacles to international trade.”<sup>19</sup> Of particular relevance to a border-adjusted carbon tax is that developing country members should receive “differential and more favorable treatment.”<sup>20</sup> In devising a border-adjusted carbon tax, the mode of compliance for imports, particularly those from developing countries, cannot create any “unnecessary obstacle” or “be more trade-restrictive than necessary to fulfill a legitimate objective.”<sup>21</sup>

### Agreement on Subsidies and Countervailing Measures (SCM)

The SCM Agreement deals with subsidies that affect trade and foreign competition. It defines a subsidy as, “a financial contribution” or “income or price support” that confers a “benefit.”<sup>22</sup> It can include direct transfers of funds, tax credits, payments, uncollected taxes and other similar policies that will offer the domestic industry greater advantage than its foreign competitors.<sup>23</sup> These provisions are particularly pertinent for constructing the export provisions of a border-adjusted carbon tax.

16. GATT, Art. XX, pp. 37-38. [https://www.wto.org/english/docs\\_e/legal\\_e/gatt47\\_e.pdf](https://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf).

17. GATT, Art. XX, pp. 37-38. [https://www.wto.org/english/docs\\_e/legal\\_e/gatt47\\_e.pdf](https://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf).

18. WTO Secretariat, “WTO rules and environmental policies: GATT exceptions,” World Trade Organization, 2017. [https://www.wto.org/english/tratop\\_e/envir\\_e/envt\\_rules\\_exceptions\\_e.htm](https://www.wto.org/english/tratop_e/envir_e/envt_rules_exceptions_e.htm).

19. World Trade Organization, *Agreement on Technical Barriers to Trade*, Preamble, 1994. [https://www.wto.org/english/docs\\_e/legal\\_e/17-tbt\\_e.htm](https://www.wto.org/english/docs_e/legal_e/17-tbt_e.htm).

20. *Ibid.*, Art. 12.1.

21. *Ibid.*, Art. 2.2.

22. World Trade Organization, *Agreement on Subsidies and Countervailing Measures*. [https://www.wto.org/english/docs\\_e/legal\\_e/24-scm.pdf](https://www.wto.org/english/docs_e/legal_e/24-scm.pdf).

23. *Ibid.*, Art. I.

Any domestic carbon policy that implements border adjustability must take into consideration the full suite of these provisions and the WTO's precedent. Currently, the best resolution is not entirely clear, because no proposal for a border adjustment of fuel tax has been brought before the WTO.

## POTENTIAL PATHWAYS

While there is substantial disagreement in the literature about how to interpret WTO law for the purposes of constructing a compliant border-adjusted carbon tax, scholars generally agree on a few significant road markers to guide a best guess.

### Direct versus indirect taxes

Indirect taxes are taxes imposed on products, while direct ones are levied on producers or manufacturers or their income. Only indirect taxes are adjustable at the border, notably because they are easy to measure. Sales taxes, excise taxes and the value-added tax all qualify as indirect taxes. On the other hand, direct taxes like income taxes, payroll and property taxes cannot be clearly measured in the value of any particular product and so cannot be adjusted.

Given precedent and WTO guidance, and modeled as an indirect tax on products, a carbon tax would certainly be consistent with WTO rules. However, it would also enormously complicate domestic compliance. A carbon tax on products would operate much like a "carbon-added-tax" and increase the paperwork burden for every economic sector captured by the policy, as well as increase the bureaucracy required to enforce the tax.

Comparatively, an "upstream" carbon price, directly onto fuels and other greenhouse gas sources, restricts tax collection to only a few, easily measurable sources. This administrative simplicity is paramount in the design of an effective carbon tax. While some scholars believe that an upstream tax on fuels could be interpreted as an indirect tax if it were described appropriately,<sup>24</sup> others argue that the peculiarities of definitions within WTO documents allow for taxes on "inputs that are consumed in the production of the exported product" to count as indirect taxes.<sup>25</sup>

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24. Hillman, 6.

25. In 1960, a working party of the GATT created a list of allowable adjustments that would not be counted as export subsidies, including indirect taxes. In the Uruguay Round Agreement (1986-1994), the definition of "indirect taxes" came to capture such "inputs." A footnote to that agreement directly identified "energy, fuels and oil used in the production process" among charges that could be rebated at export. It is important to appreciate that this defense of a carbon BTA relies on a footnote to an annex to the GATT. However, to describe a tax on fuel as an "indirect tax" has not yet been vetted by the WTO appellate body and therefore cannot yet be interpreted as law. See Hufbauer and Gabyzon, pg. 49.

Ultimately, any attempt to describe a domestic carbon price as an indirect tax will come down to the WTO Appellate Body's interpretations of key phrases that have not yet been litigated.

### Tighten the scope

To facilitate a border-adjusted carbon tax that is more likely to comply with the rules of the WTO, it may be helpful to restrict the tax to fossil fuels (and other covered sources of greenhouse gas emissions) and the most energy-intensive goods.

An upstream tax on fossil fuels according to their carbon content would indisputably be adjustable at the border, both for import and export.<sup>26</sup> Further, the methodology is clear, concise and well-understood.

It does, however, get slightly more complicated as the carbon tax extends to manufactured goods. While the methodology for carbon emissions related to the manufacture of steel, cement, paper or other primary products may be relatively more complicated to assess than that for fuels, it is infinitely easier than measuring the carbon emitted in the manufacture of more complicated products like automobiles or processed foods. For this reason, a defensible border-adjusted carbon tax would likely be restricted to goods designated as "Energy Intensive and Trade Exposed" (EITE).<sup>27</sup>

### 'Like' products

Per the WTO Appellate Body, "likeness" is, "fundamentally, a determination about the nature and extent of a competitive relationship between products."<sup>28</sup> There are four pertinent criteria: "(1) the properties, nature, and quality of the products; (2) the end uses of the product; (3) consumers' tastes and habits; and (4) international tariff classification."<sup>29</sup> These criteria greatly complicate the case for differentiating between, for example, low-carbon and high-carbon steel. However, as long as the tax is levied on the respective carbon content of the good, as opposed to the good itself, "like" treatment can be assumed. This would require some means to determine the carbon content of imported goods and to assess the tax appropriately to that content.

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26. Such a tax is reasonably interpreted as an "indirect tax."

27. Astoria, 498.

28. World Trade Organization, "EC-Asbestos," *WTO Dispute Settlement: One-Page Case Summaries*, March 12, 2001. [https://www.wto.org/english/tratop\\_e/dispu\\_e/cases\\_e/1pagesum\\_e/ds135sum\\_e.pdf](https://www.wto.org/english/tratop_e/dispu_e/cases_e/1pagesum_e/ds135sum_e.pdf).

29. Ibid.

## Determining carbon content

We know that under Articles II and III, the amount of the border-adjusted carbon tax cannot exceed the carbon tax applied to “like” domestic products. Accordingly, an appropriate border adjustment for an upstream carbon tax, such as that advanced by the R Street Institute, would assess a tax based on the quantity of carbon dioxide emitted in the production of any particular good. By restricting the adjustment to fuels and a finite list of EITE goods, it is relatively simple to quantify a particular product’s emissions and assess the appropriate tax.

However, the border adjustment must also consider imports of covered goods for which information is not available or is too difficult to collect. In particular, it must not violate the TBT Agreement, which protects developing nations that may not have adequately integrated the measurement and reporting standards necessary to comply.

In these cases, it would be preferable to devise an alternative method. For EITE goods, the border-adjusted carbon tax should be assessed as if the good had been produced in the United States according to the predominant method of production.<sup>30</sup> Imports that are capable of providing information related to carbon emissions on a product-specific or facility-specific basis can choose to comply in that regard.<sup>31</sup>

## Avoid the “chapeau”

While policies to limit greenhouse gas emissions and address global climate change undoubtedly meet the exceptions under GATT Article XX, which has provisions for environmental protection and conservation of natural resources, the chapeau’s stipulations have proven onerous. More than a dozen cases have been processed under the general exceptions and just two have satisfied its stiff requirements.<sup>32</sup>

These are twofold: that any border fee not represent “arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade.”<sup>33</sup> This would require the border-adjusted carbon tax to account for different conditions in different countries, specifically by accounting for the value of each country’s carbon-control programs in establishing

country-by-country tax levels. The WTO has also established a standard that, under the general exceptions, a border adjustment must be accompanied by diplomacy that seeks to remedy any environmental harm through other means.<sup>34</sup> It would also require that congressional debates on the border-adjusted carbon tax place heavy emphasis on its environmental benefits, rather than the protection of domestic firms from competition.

It is certainly preferable that any border-adjusted carbon tax be designed and accepted under the preceding articles of the GATT.

## Negotiate, negotiate, negotiate

Generally, global agreements on trade and climate change tend to reinforce the notion that environmental problems should not inhibit free and open trade and that trade should not reinforce environmental problems. The fact that GATT Article XX requires members to pursue multilateral approaches suggests that WTO does not generally prefer the unilateral action implied by a border-adjusted carbon tax.

Moreover, the United Nations’ “Agenda 21” report states that: “Trade policy measures for environmental purposes should not constitute a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.”<sup>35</sup> Its goes on to list preferred criteria for any trade policy, including nondiscrimination and special considerations for developing nations.<sup>36</sup>

These mutually reinforcing statements suggest that the best border-adjusted carbon tax is one that would be rendered unnecessary through effective multilateral agreements.

## Surefire pitfalls

While there is abundant uncertainty over what a compliant border-adjusted carbon tax would look like, there are several obvious design elements that would doom such a tax before the WTO. In particular, large and arbitrary exemptions would leave the policy vulnerable. Any nation-level exemptions for the tax would immediately violate Article I’s most favored nations provision. If, on the other hand, the border adjustment is defended under Article XX, consideration for greenhouse gas policies where imports are manufactured should directly inform the tax assessed on any

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30. This method was used in support of an adjustment under “Superfund” legislation in the United States. Superfund taxed certain chemicals domestically to support the cleanup of polluted industrial sites. On import, it taxed those chemicals and compounds manufactured from those chemicals. On review, a WTO panel found the adjustment, “equals in principle the amount of the tax which would have been imposed under the Superfund Act.” For further discussion, see Astoria, pp. 505-506.

31. See Pauwelyn, 31-32; Hillman, 7-9; and Gavin Goh, “The World Trade Organization, Kyoto and Energy Tax Adjustments at the Border,” *Journal of World Trade* 38:3 (June 2004), 405-06.

32. Hillman, 11.

33. GATT, Art XX, pp. 37-38. [https://www.wto.org/english/docs\\_e/legal\\_e/gatt47\\_e.pdf](https://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf).

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34. Astoria, 524-25; Goh, 416-19.

35. GATT, Art XX, pp. 37-38. [https://www.wto.org/english/docs\\_e/legal\\_e/gatt47\\_e.pdf](https://www.wto.org/english/docs_e/legal_e/gatt47_e.pdf).

36. United Nations Sustainable Development, *Agenda 21*, United Nations Conference on Environment and Development, June 1992, 39.3. <https://sustainabledevelopment.un.org/content/documents/Agenda21.pdf>.

imported goods.<sup>37</sup> The particular design of a carbon price should reflect the best legal case that the United States can muster before the WTO, which presents a significant challenge for the design of a border-adjusted carbon tax through legislation.

## SUGGESTED MODEL

As the legal community continues to debate the best design for a WTO-compliant border-adjusted carbon tax, R Street offers for evaluation a framework for the domestic carbon price and accompanying border adjustments.

For the purposes of establishing a border-adjusted carbon tax model, the preferred carbon policy advanced by R Street is a revenue-neutral carbon tax that reduces or displaces the corporate income tax<sup>38</sup> and pre-empts unnecessary regulation.<sup>39</sup> The tax is levied upstream on fuels as they enter the economy—at the refinery rack for petroleum, after processing for natural gas and after beneficiation for coal—and would be assessed in an amount of dollars per-ton of greenhouse gases emitted upon combustion of the fuel.

Imported fuels are taxed at the same rate and according to the same process as domestically produced fuels, while exported fuels are rebated for the value of the tax paid by the same method.

A border-adjusted carbon tax will be established to provide the adjustment for EITE goods, including steel, iron, aluminum, cement, paper and glass. The value of the rebate upon export would be determined on a facility-by-facility basis, and assessed according to the facility's measured emissions and produced output. Upon import, the border-adjusted carbon tax is assessed according to the predominant method of production in the United States. Should an importer want to challenge the border adjustment, they may request that it be assessed according to the emission rates at an individual facility.

Such design, particularly as limited to fuels and EITE goods, should pass muster under Articles I, II and III of the GATT. If the WTO rejects the carbon price as an "indirect tax," this policy can also meet the obligations of the Article XX exceptions and the chapeau. Yet it is imperative that an emphasis on environmental protection and climate impacts dominate the political discussion around the inclusion of border adjustability in the carbon price.

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37. Cosbey, 17.

38. Catrina Rorke, Andrew Moylan, et al., "Swapping the Corporate Income Tax for a Price on Carbon," *R Street Policy Study* No. 79, December 2016. <https://www.rstreet.org/wp-content/uploads/2016/12/79.pdf>.

39. Catrina Rorke, "Regulatory Pre-emption as a Prelude to Carbon Pricing," *R Street Shorts* No. 43, August 2017. <http://www.rstreet.org/wp-content/uploads/2017/08/RSTREETSHORT43.pdf>.

## CONCLUSION

Though many experts have debated the proper model for a border-adjusted carbon tax, no firm conclusions may be drawn until the WTO takes up any challenge to a specific one. All suggestions for model policy, including this one, are based on informed assumptions related to underlying WTO law and precedent.

Three points are clear. First, international negotiations through platforms like the U.N. Framework Convention on Climate Change (UNFCCC) can strengthen the case for such border adjustments. International agreement as to when and how border provisions should be enacted to achieve environmental outcomes establishes clear rules that the WTO should follow. It is relevant that current U.S. policy regarding international commitment to address climate challenge is a mandate to renegotiate the Paris Accords, a framework that can directly stipulate and advance an acceptable model for the border-adjusted carbon tax that WTO would be likely to accept.

Second, the WTO is inclined to grant preference to consumption- or product-based measures. This can and should inform the present domestic focus on tax reform. Not only is an emphasis on competitive rates important, but a tax structure shaped around consumption-based taxation can be further adapted to competitive ends.

Third, tax policy and border adjustments are not the primary driver of global trade flows. The overall course of global trade will depend on economic and technological factors that go beyond the policies of any one nation, though an individual nation's policies can certainly affect how they participate in the global economy.

It is worth a final note that this paper is devoted to an analysis of border adjustability for a carbon tax. The preponderance of scholarly work suggests that a carbon price has the greatest likelihood of passing muster with the WTO. Cap-and-trade policies present even greater obstacles for the construction of WTO-compliant border adjustments, and the WTO will not accept a border adjustment for a regulatory solution to climate change.

## ABOUT THE AUTHORS

**Catrina Rorke** is an associate fellow with the R Street Institute and previously was R Street's energy policy director. She founded R Street's energy program, which is focused on clarifying a well-defined and limited role for government in shaping decisions about infrastructure, wholesale and retail electricity, research and development, fuel choice and diversity, and climate adaptation and mitigation.

Catrina previously founded the energy program at the American Action Forum. While there, she used the program to deliver free-market energy analysis and to emphasize policy proposals consistent with a small government footprint, with a particular emphasis on critiquing excessive regulation and expanding government programs.

**Josiah Neeley** is senior fellow, energy policy director and Southwest region director for the R Street Institute.

He leads the institute's energy program, which works to advance a well-defined and limited role for government in shaping decisions about infrastructure, wholesale and retail electricity, research and development, fuel choice and diversity, and climate adaptation and mitigation. He also leads the institute's work on legislation and issues affecting Arkansas, Louisiana, New Mexico, Oklahoma and Texas.

Josiah joined R Street in November 2014, having previously served as a policy analyst for the Center for Tenth Amendment Studies and the Armstrong Center for Energy & the Environment at the Texas Public Policy Foundation.