THE UNCERTAIN GATT-LEGALITY OF BORDER ADJUSTMENTS FOR CARBON TAXES AND THE COST OF EMISSIONS PERMITS

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INTRODUCTION

UNDER THE KYOTO PROTOCOL, MOST ADVANCED countries, with the notable exception of the United States, agreed to reduce CO_2 emissions to 95 percent of their 1990 levels by 2012, but less developed countries (LDCs) were not required to reduce emissions. The mechanism for emissions reduction is unspecified, but it could be by "pricing carbon," via either a carbon tax or a cap and trade system. The Kyoto commitments are origin-based: to reduce CO_2 *emissions,* not *consumption* of carbon-intensive products. If this is achieved by origin-based carbon pricing, exports bear tax or the cost of permits; imports do not.

Concerns

Developed countries are concerned that if they institute origin-based carbon pricing (or take other measures to reduce emissions), but some countries do not:

- Producers in countries that do not price carbon (the United States and LDCs, hereinafter "non-participating" countries) will have an unfair competitive advantage;
- "Carbon leakage" will occur, as production shifts to non-participants, undermining achievement of the goal of reducing global emissions;
- There will be a "free-rider" problem, due to the incentive not to participate; and
- Economic inefficiency will be impaired, as emissions will not be reduced where cheapest.

There are political pressures both in the United States, which does not yet (November 2010) price carbon, and in the European Union (EU), whose Member States have initiated the EU Emissions Trading System, to graft destination-based features onto what is basically an origin-based system, by instituting border adjustments (BAs) on trade with non-participants, thereby creating a "mixed" system. In particular, depending on the domestic system for pricing carbon, imports from non-participating countries would be subject to either the carbon tax or a requirement to hold permits. Also, carbon tax or the cost of permits embedded in the price of exports to such countries might be rebated.

Political Issues

In addition to the legal issues that are the focus of this paper, there are political ramifications and technical and administrative barriers to introducing a mixed system. Because developed countries are responsible for the lion's share of the CO_2 already in the atmosphere, LDCs believe that it is they who should be primarily—if not solely—responsible for reducing emissions of greenhouse gases—a point they made forcefully at the December 2009 Copenhagen meetings on climate change, as well as in Kyoto. Many fear that the introduction of BAs on trade with non-participating countries could set off trade wars, especially if the World Trade Organization (WTO), which adjudicates the legality of BAs under the international trade rules, finds the mixed system to violate those rules. But a contrary finding could jeopardize the legitimacy of the international trade regime embodied in the rules. In theory it would be possible to revise those rules to allow BAs for carbon pricing, but revision along those lines is unlikely to occur, because of LDC opposition. These issues are not considered further, except briefly in the fourth section.

Technical and Administrative Issues

In McLure (2011) I stated:

> At best, the technical and administrative challenges involved in implementing border adjustments for carbon prices would be daunting, as it would be necessary to determine the carbon content embedded in the cost of exports (so that carbon taxes or the cost of emissions permits could be rebated) and—even more challenging—of imports (so that carbon taxes or permit fees could be collected). These problems would be alleviated to the extent that the pricing of carbon is limited to a small number of energy-intensive sectors or that BAs are limited to carbon- and trade-intensive products.

These difficulties can be illustrated by focusing on border tax adjustments (BTAs) for a carbon tax. To implement BTAs for exports it would be necessary to calculate the "indirect" carbon tax embedded in the costs of non-fuel inputs used to produce exports (for example, to calculate the cost of the carbon tax on fuel used to produce electric power that is embedded in the cost of aluminum, which may either be exported or used as an input to other exports—a task that becomes even more problematic if electricity is produced using both carbon-intensive and "clean" technologies), as well as the "direct" costs of the carbon tax imposed on fossil fuel consumed by the exporting sector. These indirect effects are called "taxes occultes" below.

In McLure (2011) I described some of the problem of implementing BTAs on imports:

> The calculation of import BTAs would be even more problematic, as it should reflect the carbon content of production in the exporting country. Obtaining the requisite information may be extremely difficult, especially in developing countries. Compounding the difficulty is the fact that imports, including those from countries that price carbon, may contain components produced in several countries, including the importing country. It would be necessary to have rules of origin and methodologies for calculating the appropriate BTAs in such cases.... Similar problems would occur on the export side. Finally, the two methodologies for calculating import BTAs ... that are assumed to be legally "fail-safe," predominant method of production in the importing country and best available technology, would presumably need to be applied at each stage of the production-distribution process to calculate the acceptable level of import BTAs, further greatly complicating the calculation.

What Follows

The remainder of this paper, drawing heavily on McLure (forthcoming), considers six primary questions, as well as many subsidiary ones. Would BTAs for a carbon tax violate the international trade rules? How about a mixed system? The second section examines these issues. Would BAs be allowed for the cost of emissions permits that are auctioned? Would free allocation of permits undermine the case for BAs? Would Bas be allowed for permits bought on the secondary market? Would they be allowed for costs incurred in sequestering CO_2 or purchasing carbon offsets under the Clean Development Mechanism (CDM). The third section addresses these issues. The bottom line is that the legality of BTAs for carbon taxes is uncertain and the legality of BAs for the cost of emissions permits is even less clear. The fourth section offers concluding remarks.

THE TRADE RULES, AS APPLIED TO BTAS FOR CARBON TAXES

The Rules

The international trade rules that are most pertinent for appraising the legality of import BTAs for carbon pricing are commonly believed to be Articles I (most favored nation treatment) and III (national treatment) of the General Agreement on Tariffs and Trade (GATT). (Some believe that GATT Article IV, dealing with regulations, may be more applicable to BAs for the cost of permits under a cap and trade system. This possibility and its implications are not examined here.) Article XVI of the GATT and the Agreement on Subsidies and Countervailing Measures (ASCM) are the most relevant rules for BTAs on exports. Because the term "like products" plays a central role, it receives special attention, as in all discussions of the GATT-legality of BTAs. Even if a measure is challenged successfully under these "basic" rules, it may nonetheless qualify for one of the general exceptions provided by GATT Article XX.[1]

BTAs for Imports and Exports

It is worth noting at the outset that BTAs for imports and exports would not necessarily be treated symmetrically. The two types of BTAs have different legal bases, they are commonly treated separately in the literature, and an Article XX exception for exports is unlikely. Moreover, concerns regarding competitiveness and carbon leakage focus primarily, though not exclusively, on imports from non-participating countries.

GATT Article III.2 states that imports "shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products." GATT Article I provides that favorable treatment of trade with one country must be extended to trade with all signatories.

GATT Article XVI.4 outlaws subsidies that result in the sale of exports at a price lower than that "charged for the like product in the domestic market." The illustrative list of export subsidies in Annex II of the ASCM includes, in addition to BTAs for direct taxes, (as item g): "The exemption or remission, in respect of the production and distribution of exported products, of indirect taxes in excess of those levied in respect of the production and distribution of like products when sold for domestic consumption."

The Nature of Carbon Taxes

It is useful to clarify the nature of carbon taxes under the trade rules. First, Annex II of the ASCM (item e) states explicitly that BTAs are not allowed for direct taxes; while there is no equally clear statement in the GATT, it can be inferred. Some seem to believe that this means that BTAs for carbon taxes would be illegal, but that inference seems to be incorrect. Footnote 58 to ASCM Annex II contains the following definitions:

- The term "direct taxes" shall mean taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property;
- The term "indirect taxes" shall mean sales, excise, turnover, value added, … border taxes and all taxes other than direct taxes and import charges.

While carbon taxes, which did not exist when these words were drafted, are not mentioned, they clearly are not direct taxes. Thus, they are presumably not per se ineligible for BTAs.

Second, some think that carbon taxes are "prior-stage cumulative indirect taxes ... levied on inputs that are consumed in the production of the exported product," for which export BTAs are explicitly allowed under the ASCM (Section I.1 of Annex II). But carbon taxes are not "prior-stage cumulative indirect taxes," the term of art used in the ASCM to describe gross-receipts or "turnover" taxes. Thus BTAs for them are also not per se allowed.

Third, carbon taxes are not imposed directly on traded products or like domestic products, except in the case of fossil fuels. Nor, since CO_2 is emitted, can it be said that carbon taxes are levied on products incorporated into traded products or their domestic counterparts. Rather, carbon taxes are embedded or hidden in the cost of inputs. In short, carbon taxes are what were once called "taxes occultes," or hidden taxes. Regarding BTAs for this type of tax, the 1970 Working Group on BTAs, which could not have anticipated the future existence of carbon taxes and cap and trade systems, concluded (Article 15), "It was generally felt that while this area of taxation was unclear, its importance—as indicated by the scarcity of complaints reported in connexion with adjustment of taxes occultes—was not such as to justify further examination."

Are Carbon Taxes Levied "Like Products"?

With this background, we can ask whether carbon taxes and related BTAs are imposed indirectly on "like products," the criteria for legality under the GATT and ASCM. This raises two closely related questions: whether carbon taxes are levied on products and whether physically identical products differing in energy intensity are "like."

Carbon taxes and the cost of emissions permits are commonly said to be based on "process and production methods" (PPMs), rather than on products. The first question above thus becomes whether taxes based on PPMs are adjustable. The answer is subject of on-going controversy and uncertainly. Until recently the WTO website contained the following statement: "Under existing GATT rules and jurisprudence, 'product' taxes . . . can be adjusted . . ., but 'process' taxes . . . by and large cannot. For example, . . . a tax on the energy consumed in producing . . . steel (a tax on the production process) cannot be applied to imported steel . . . ."

Yet in the *Superfund* case, a WTO panel found that BTAs arguably based on PPMs were GATT-legal. The United States taxed chemical feedstocks (but not chemicals produced therewith) and imposed BTAs on imports of chemicals produced with the taxed feedstock chemicals. In its decision, the WTO Panel did not consider whether U.S. feedstocks and imported chemicals were "like products" or indicate whether feedstocks were physically incorporated—or whether it matters. It is thus not clear whether this ruling is relevant for determining the legality of BTAs for carbon taxes.

BTAs for the US tax on ozone depleting chemicals (ODCs) poses a clear case of BTAs based on PPMs. BTAs were imposed on imports produced using ODCs, as well as on imports of ODCs and imports containing ODCs. That these BTAs were never challenged suggests to some that BTAs for a carbon tax would be GATT-legal. But the lack of challenge does not necessarily mean that BTAs based on PPMs would be found legal, if challenged.

Differentiation Based on Energy Intensity

To create a level playing field, BTAs should be based on the carbon content of imports and exports. If the prices of imports and domestic products are similar, BTAs would be a greater fraction of the price of highly energy-intensive imports than the domestic carbon tax is of the domestic price. But such a difference is not allowed if imports and domestic products are "like." This raises the question of whether differences in energy-intensive make products unlike—in which case the difference would be acceptable. The GATT does not define "like." The WTO has suggested that likeness depends on the competitive relationship between products. This suggests that physically identical products are "like"—and that BTAs cannot reflect the energy intensity of imports.

The *Shrimp-Turtle* Case

A 1998 WTO decision (under Article XX) implied that PPMs can matter. The *Shrimp-Turtle* case involved a U.S. law restricting imports of shrimp caught in nets lacking turtle-exclusion devices, not taxation. The WTO Appellate Body (AB) ruled that identical products produced using different processes may not be "like." This is commonly seen as a watershed case. But the WTO does not apply the principle of *stare decisis*, making decisions on a case-by-case basis.

Tree Diagram for the Basic GATT Rules

The following tree diagram summarizes the preceding discussion, plus that below of the basis for calculating BTAs on imports:

- Are carbon taxes direct or indirect taxes?
  - If carbon taxes are direct taxes, BTAs are per se not allowed.
  - Since carbon taxes are not direct taxes: BTAs *may* be allowed.
    - Are carbon taxes prior-stage cumulative indirect taxes?
      - Since they are not, BTAs are not per se allowed.
    - Are carbon taxes and BTAs imposed on products?
      - If they are not imposed on products, BTAs are not allowed.
      - Are carbon taxes and BTAs based on PPMs levied on products?
        - If they are not levied on products, BTAs are not allowed.
        - If they are levied on products, BTAs *may* be allowed.
          - Are physically identical products necessarily "like" (in that differences in PPMs do not matter)?
            - If so, BTAs must be based on the carbon content of domestic products or on the best available technology.
            - If not (i.e., if PPMs can make products "unlike"), BTAs can be based on the carbon content of imports.

Most Favored Nation Treatment

No matter how the above questions are answered, it seems clear that adoption of a "mixed" system in which BTAs are applied only to trade with non-participating countries, would violate most favored nation treatment.

General Exceptions to the Basic Rules

GATT Article XX poses a two-stage test for exceptions to the basic rules.

First, is the measure:

(b) necessary to protect life or health; or

(g) relating to the conservation of exhaustible natural resources ... made effective . . . in conjunction with restrictions on domestic production or consumption?

Second, does the measure satisfy the chapeau (headnote), by not being applied in a manner constituting "arbitrary or unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade?"

The AB has stated (in *Shrimp-Turtle*) that the words "exhaustible natural resources" should be read "in light of contemporary concerns . . . about the protection and conservation of the environment." Such concerns are articulated in the Preamble to the WTO Agreement, as well as the UN Framework Convention on Climate Change and the Kyoto Protocol. Import BTAs seem most defensible under paragraph (g). The AB has ruled that clean air is a depletable natural resource. BTAs for carbon taxes would appear to pass the AB's requirements that there be a "means-ends relation" to conservation and that the treatment of imports and domestic production is evenhanded. By comparison, it is difficult to justify BTAs on exports, as they eliminate the price for carbon intended to reduce emissions of CO_2. In any event, it would be important to emphasize environmental benefits, not protection of jobs, as protecting jobs is not one of the justifications on which an Article XX exception can be predicated.

Application of the chapeau requires a balancing of the GATT rights of countries challenging a measure and those of a country seeking an exception. In judging whether there is unjustifiable discrimination, it is necessary to consider local conditions, whether there have been good-faith negotiations, and whether fairness and due process have been respected.

The local conditions to be considered include whether a country has adopted measures to reduce emissions. BTAs would likely be allowed only for trade with countries that have not done so. These need not be the types of measures adopted by the country seeking the exception. Whether the challenging country is an advanced country or an LDC may also be important, as it could be argued that an exemption for LDCs is required by the Kyoto Protocol and the UNFCCC, which provides that States have "common but differentiated responsibilities and respective capabilities" in addressing climate change. Putting these considerations together suggests that application of the facially discriminatory policies inherent in the mixed system might be severely limited—that BTAs might be allowed only for advanced nations not pricing carbon. Of course, that would mean that imports from (or exports to) large emitters of CO_2 such as China and India would not be subject to BTAs.

LDCs may argue that BTAS for carbon taxes are disguised restrictions on international trade. (They made similar arguments against the U.S. policy regarding turtle-exclusion devices.) This seems far-fetched, but would perhaps be politically effective.

Calculating BTAs for Imports: Avoiding Protection

If imports and domestic products are "like," import BTAs must be limited to the carbon content of the latter. The WTO Panel in the *Superfund* case condoned basing BTAs on the "predominant method of production" (PMP) in the importing country. BTAs based on best available technology (BAT) as proposed by Ismer and Neuhoff (2007) would also presumably be acceptable. Implementing these rules is not straightforward, and both could seriously understate the carbon content of imports, undermining the effort to achieve a level playing field.

If imports and domestic products are "unlike," BTAs could be based on carbon content of imports. But they could not be based on country averages. Implementation would thus raise enormous problems of measurement and verification.

THE TRADE RULES, AS APPLIED TO BAS FOR THE COST OF EMISSION PERMITS

The above discussion of BTAs for carbon taxes is generally relevant in trying to predict whether BAs are likely to be allowed for the cost of emissions permits under a cap and trade system. But these costs and are not taxes, and it is even less certain whether BAs would be allowed for them than for a carbon tax.

BAs for the Cost of Auctioned Permits

Economic logic suggests that BAs should be allowed for the cost of auctioned emissions permits, to the extent that BTAs are allowed for carbon taxes. But the legal analysis is less straightforward.

The GATT allows BTAs for taxes and other charges. Would the cost of permits be treated like a tax? The OECD defines taxes as "compulsory, unrequited payments to general government." Payments for permits are unrequited. But are they compulsory? Are they made to a government? What about the cost of permits embedded in the cost of electricity? This brings us back to the legality of BTAs for "taxes occultes" and the difficulty of implementing them

BAs for Cost of Free Permits

That some emissions permits might be granted free of charge further complicates the analysis. On the one hand, the GATT and the ASCM refer to taxes (and charges) borne by or paid on like domestic products. In this case, there is no payment to a government and it may appear that no cost is borne by or paid on like domestic products.

On the other hand, economists argue that BAs must be allowed, if adverse effects on competitiveness and carbon leakage are to be avoided. Their reasoning goes something like this:

- Free allowances have an opportunity cost that will be reflected in domestic prices;

- Free distribution of permits is tantamount to a lump-sum transfer that will have no effect on competitiveness and leakage;
- BAs are therefore appropriate.

This argument is particularly compelling if upstream suppliers receive free permits. It is expected that electric power companies will include the opportunity cost of permits in their electric rates, if allowed by regulatory authorities to do so. BAs are needed to eliminate competitive effects and carbon leakage, but may not be allowed.

BAs for the Cost of Permits Acquired in Secondary Markets, Sequestration, and CDM

Still further complications arise if permits are acquired in secondary markets. Payments are compulsory and unrequited, but are not made to governments. Failure to allow BAs would leave adverse competitive effects and carbon leakage intact. Again, free permits compounds uncertainty.

Emitters may sequester CO_2 and be allowed to buy carbon offsets via the CDM. While economic logic seems to require that BAs be allowed for the costs of sequestration or use of the CDM, it is doubtful this logic would prevail**,** as these costs do not meet the definition of a tax or other charge. They might better be considered costs of satisfying regulatory requirements and thus subject to GATT Article III.4, a possibility not examined here.

CONCLUDING REMARKS

Without BAs on trade with non-participating countries, carbon taxes and cap and trade systems are politically unpopular. But BAs may violate the rules under which international trade is conducted. This cannot be known until BAs are imposed, challenged, and adjudicated in the WTO. If they are found not to violate the rules, developing countries will question the legitimacy of the WTO system. But if they are found to do so, and are imposed anyway, the damage to the WTO system could be even greater. Either way, the failure to address this issue earlier leaves an enormous “elephant in the room,” one that threatens to trample the WTO system.

Endnote

[1] See also Hufbauer, Charnowitz, and Kim (2009).

References

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