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Article

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Vierteljahrshefte zur Wirtschaftsforschung

Provided in Cooperation with:

German Institute for Economic Research (DIW Berlin)

Suggested Citation: Biermann, Frank; Brohm, Rainer (2005) : Border Adjustments on Energy Taxes: A Possible Tool for European Policymakers in Implementing the Kyoto Protocol?, Vierteljahrshefte zur Wirtschaftsforschung, ISSN 1861-1559, Duncker & Humblot, Berlin, Vol. 74, Iss. 2, pp. 249-258, <https://doi.org/10.3790/vjh.74.2.249>

This Version is available at:

<https://hdl.handle.net/10419/99395>

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Border Adjustments on Energy Taxes: A Possible Tool for European Policymakers in Implementing the Kyoto Protocol?

By Frank Biermann* and Rainer Brohm**

Summary: This article analyses whether the European Union could lawfully enact border adjustments for energy taxes vis-à-vis other industrialised countries that are not party to the 1997 Kyoto Protocol to the UN Framework Convention on Climate Change without violating world trade law, in particular the General Agreement on Tariffs and Trade (GATT) and the Agreement on Subsidies and Countervailing Measures (SCM Agreement). We outline the rationale for border adjustments for energy taxes and conclude that despite remaining ambiguity in both the legal provisions and the pertinent case law, energy-related border tax adjustments are under certain circumstances compatible with world trade law.

Zusammenfassung: In diesem Artikel wird untersucht, ob die Europäische Union bestehende und künftig drohende Wettbewerbsnachteile infolge nationaler Energiesteuern mit Hilfe von Grenzausgleichssteuern (Border Tax Adjustments, BTA) gegenüber Nichtunterstützerstaaten des Kyoto-Protokolls von 1997 neutralisieren kann, ohne in Konflikt mit dem geltenden Welthandelsrecht zu geraten, insbesondere mit dem Allgemeinen Zoll- und Handelsabkommen (General Agreement on Tariffs and Trade, GATT) und dem Subventionsabkommen (Agreement on Subsidies and Countervailing Measures, SCM Agreement). Unsere Analyse kommt zu dem Ergebnis, dass trotz verbleibender Unklarheiten im Vertragsrecht und der Rechtsprechung der Grenzausgleich von Energiesteuern unter bestimmten Voraussetzungen im Einklang mit dem Welthandelsrecht steht.

1 Introduction***

The implementation of the Kyoto Protocol to the United Nations Framework Convention on Climate Change is likely to maintain, or even increase, the current divergence in the level of energy prices between the United States and Europe. Energy prices in the United States are already substantially lower than in most countries with sizeable energy taxes. For instance, the price of heavy fuel oil for industry in the United States is about one fifth lower than the average price in a sample of nine other OECD countries, all of which have some form of energy taxation.¹ Regarding electricity prices for industry, prices in the

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*** This study has been part of a wider research effort together with colleagues from the German Institute for Economic Research (DIW Berlin), in particular Frédéric Böhm, Susanne Dröge and Harald Trabold, on behalf of the German Ministry for the Environment, Nature Conservation and Nuclear Safety. A significantly more extensive version of the analysis has appeared in *Climate Policy* (4:3). The valuable comments and insights of our DIW project partners as well as of Lilibeth Acosta-Michlik, Harro van Asselt, Per-Olof Busch and Heike Schröder are appreciated. The authors remain responsible for all errors.

¹ For a more detailed discussion of the price gap see Biermann and Brohm (2003) with further references.

United States are lower by as much as one third. This price gap between the United States and other industrialised countries is even more remarkable given that countries with energy tax regimes already grant numerous exemptions for energy-intensive industries.²

Such price differentials created or reinforced by environmental taxation have triggered strong political pressure against both European governments and the European Commission. Such political pressure, in particular from industry, may obstruct European environmental policies and become a threat for climate protection strategies and the implementation of the Kyoto Protocol. This in turn might jeopardise or complicate the implementation of the Kyoto Protocol in those countries that have ratified it.³

Different options are available for European governments to offset real or perceived impacts of energy taxes on competition, especially for energy-intensive or export-oriented industries.⁴ Most prominent is the partial or full exemption from the tax and the granting of reduced tax rates. However, exemptions also give rise to significant problems.⁵

In the following, we therefore analyse an alternative measure that could offset competitive burdens on the global market place without watering down the environmental objective of reducing carbon dioxide emissions: the adjustment of energy taxes at the border. We are interested in the question of whether such border tax adjustments would be defensible under world trade law if, at some time in the future, European decision-makers would deem such measures as being necessary to protect European (possibly more stringent) climate policies from competition by non-European industrialised countries. This information about a hypothetical future situation is relevant for the present development of policies, and it might prove to be important information for climate negotiators in both Europe and the United States.⁶

We distinguish between border tax adjustments vis-à-vis non-European industrialised countries, on the one hand, and developing countries on the other.⁷ We draw this distinction on both fairness and legal grounds. On fairness grounds, certain advantages for developing countries through the implementation of the Kyoto Protocol are probably justified given the historic overuse of the atmosphere in the course of Northern industrialisation and the persistent higher per-capita emissions in the North. On legal grounds, such advantages seem justified, if not required, by the principle of common but differentiated responsibilities and capabilities as enshrined in article 3:1 of the 1992 UN Framework Convention on Climate Change, as well as in the 1992 Rio Declaration on Environment and Development. These legal documents influence the interpretation of world trade law,

² Tax exemptions accompanied ecological tax regimes from the very beginning, see Hoerner and Muller (1997), 253.

³ A well-documented example is Finland, the first country that introduced a carbon tax on fossil fuels in 1990. After seven years of resistance, the Finnish government had to cave in for persistent lobbying efforts from industry and lower tax rates for industry and shift from fuel taxation to end product taxation, see Teir (1999) as well as OECD (2001). Similar resistance has been reported for Germany, see Schlegelmilch (1998).

⁴ See Biermann and Brohm (2003 and 2005) for more details. See also Dröge et al. (2004) for a detailed case study on Germany's energy legislation and world trade law.

⁵ We have elaborated on this in Biermann and Brohm (2003 and 2005).

⁶ Other potential conflicts between the Kyoto Protocol and world trade law are reviewed in Brewer (2004) and Charnovitz (2003) with further references.

⁷ On European climate policies between the United States and developing countries, see Biermann, forthcoming.

since its interpretation must take into account widely ratified multilateral treaties concluded by WTO parties in related domains (see Biermann, 2001 on this question).

In addition, possible environmental leakage effects to developing countries can be addressed through existing mechanisms, such as the Global Environment Facility that has been created to reimburse the agreed incremental costs of developing countries in implementing the climate convention and a few other agreements.⁸ Thus, border tax adjustments might be implemented – if justifiable under world trade law as will be analysed in the remainder of this paper – against industrialised countries that gain trade advantages through persistently lower energy prices owing to insufficient implementation of climate policies. Border tax adjustments should be avoided, however, against developing countries, while other policies to address carbon leakage, such as financial and technological assistance, could be used instead.

Are border adjustments related to energy taxes permitted under world trade law? A clear answer to this question is not easy, because many relevant principles and legal terms are not clearly defined in WTO law, and the case law through dispute settlement panels and the WTO Appellate Body remains sketchy. Also, different legal provisions apply to adjustments on the import side – when the domestic tax is imposed on like products when imported (section 2) – and to adjustments on the export side, that is, when the domestic tax is remitted on the exported product (section 3).

2 Energy Tax Adjustments for Imported Goods

Article III:1 of the GATT states the basic principle that internal taxes and other internal charges

“should not be applied to imported or domestic products so as to afford protection to domestic production”.

Article III:2 adds that imported products

“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”.

A border tax on an imported product could thus violate these provisions if not levied on a like domestic product.

An important distinction is here between indirect and direct taxes. Adjustments for taxes that are levied equally on both the domestic and the imported final product (indirect taxes, such as value added taxes) are defensible under world trade law. On the other hand, direct taxes are not eligible for adjustment. Direct taxes would include, following the definition in the 1994 Agreement on Subsidies and Countervailing Measures,

⁸ See article 4:3 of the 1992 UN Framework Convention on Climate Change.

"taxes on wages, profits, interests, rents, royalties, and all other forms of income, and taxes on the ownership of real property" (footnote 58, Annex I to the Agreement on Subsidies and Countervailing Measures (1994)).

Given this relevance of the legal distinction between indirect and direct taxes, the exact line between both becomes crucial. The eligibility of taxes for adjustment remains unclear, in particular, in the case of indirect taxes that are indirectly applied to end products, that is, input or process-related prior-stage taxes on physical inputs such as energy.

Article II:2(a) of the GATT reads that nothing in article II (on schedules of concessions) shall prevent parties from imposing on the importation of any product

"a charge equivalent to an internal tax imposed consistently with the provisions of paragraph 2 of Article III in respect of the like domestic product or *in respect of an article from which the imported product has been manufactured in whole or in part*" [emphasis added].

The use of the word "article" could indicate that the charge equivalent to the indirect tax shall be construed as restricted to products physically incorporated into the final product (which would exclude energy or carbon taxes), though this interpretation is not obligatory given the ambiguous wording of the provision (the equally valid French text, however, speaks of *une marchandise qui a été incorporée dans l'article importé*, which would most likely exclude energy). The 1970 GATT Working Party on border tax adjustment could find no consensus on such process-related indirect taxes, stating that so-called "taxes occultes" – including taxes on energy – could not be clearly categorised in the context of border tax adjustment eligibility (GATT Working Party on Border Tax Adjustments (1970: para. 15 lit a)).

Relevant jurisprudence under the GATT has further elaborated on this issue. In particular, in the *US Superfund Tax* case a GATT dispute panel found that taxes on

"chemicals used as materials in the manufacture or production of the imported substances"

might be taken into account when imposing border tax adjustments on imported like products (GATT Report of the Panel *United States – Taxes on Petroleum and Certain Imported Substances* (1987: para 5.2.7ff.)). The panel, however, did not indicate whether the chemicals needed to be physically incorporated in the final product in any way, or whether they could be consumed without remaining traces in the production process. In other words, are fuels to be deemed "chemicals used as materials in the manufacture or production" of products? Not asked on this point in this case, the panel remained understandably silent.

In sum, although the case law is ambiguous as to whether national energy taxes could be supported through border adjustments, it seems that taxes on chemicals – possibly also energy – used as materials in the manufacture or production of imported substances can be included in border tax adjustment schemes.

3 Energy Tax Adjustments for Exported Goods

Concerning border tax adjustment on exports, article XVI:4 of the GATT prohibits subsidies for products that result

“in the sale of such product for export at a price lower than the comparable price charged for the like product to buyers in the domestic market,”

and article VI:2 of the GATT allows a party to impose countervailing duties on the imported product equivalent to the subsidy granted by the exporter. This does not apply, however, to indirect taxes: Article VI:4 states that no product shall be subject to anti-dumping or countervailing duties by reason of the exemption of such product from “duties or taxes borne by the like product when destined for consumption in the country of origin or exportation, or by reason of the refund of such duties or taxes”.

The 1994 Agreement on Subsidies and Countervailing Measures, in paragraph (h) of Annex I – the illustrative list of export subsidies – identifies as an export subsidy

“[t]he exemption, remission or deferral of prior-stage cumulative indirect taxes [footnote omitted] on goods or services used in the production of exported products in excess of the exemption, remission or deferral of like prior-stage cumulative indirect taxes on goods or services used in the production of like products when sold for domestic consumption; provided, however, that prior-stage cumulative indirect taxes may be exempted, remitted or deferred on exported products even when not exempted, remitted or deferred on like products when sold for domestic consumption, if the prior-stage cumulative indirect taxes are levied on *inputs that are consumed in the production of the exported product* (making normal allowance for waste) [...]” [emphasis added].

Paragraph (h) further requires that this proviso needs to be interpreted in accordance with the guidelines on consumption of inputs in the production process in Annex II. Annex II then defines in footnote 61 that

“inputs consumed in the production process are inputs physically incorporated, *energy, fuels and oil used in the production process* and catalysts which are consumed in the course of their use to obtain the exported good” [emphasis added].

In other words: If a government exempts a prior-stage cumulative indirect tax on energy, fuels or oil used in the production process only on exported goods and not on goods sold for domestic consumption, then this will not be considered an export subsidy.⁹

A different question is, however, to what degree this interpretation of border tax adjustments on exports extends to imports. The 1970 Working Party on Border Tax Adjustments found that the GATT provisions on this matter applied the destination principle identically to both imports and exports, which is in line with the general logic of the world trade regime (Working Party on Border Tax Adjustments, 1970: para. 10). Given the logical connection between border tax adjustments on exports and imports, which are practically two sides of a coin, one might conclude that it would be defensible to apply footnote 61 of An-

⁹ For a more detailed discussion of the legal and political problems linked with footnote 61, cf. Biermann and Brohm (2005).

nex II of the Agreement on Subsidies and Countervailing Measures also *mutatis mutandis* to the interpretation of GATT regarding imports.¹⁰

This conclusion is reinforced by the need to interpret world trade law – including the provisions on border tax adjustments regarding imports – in the context of other legal obligations of the parties, especially those obligations under widely accepted and ratified multilateral environmental agreements. Admittedly, the relationship between WTO law and multilateral environmental agreements remains disputed and is in need of further clarification (see Biermann 2001). However, it certainly matters for the interpretation of WTO law that 95 per cent of WTO members have ratified the climate convention, which requires industrialised countries to enact measures to limit the emission of greenhouse gases.¹¹ This fact must also guide the interpretation of GATT provisions on the acceptability of border adjustments for energy taxes regarding imports.

4 Conclusion

Despite limited case law and some ambiguities in treaty law, it seems that if Europe embarked on a carefully designed strategy of energy tax adjustments at the border vis-à-vis non-European industrialised countries, there is a fair chance that European governments would prevail if these tax adjustments were challenged by other WTO members before the WTO dispute settlement system. This is the main conclusion of this study.¹²

The US experience with the Superfund and the Ozone Depleting Chemicals taxes illustrates that a border tax adjustment on production inputs is practicable despite all remaining technical problems. However, collecting the relevant data for the process-based calculation of a border tax adjustment, that is, tracing the proper amount of taxed input in the production process in the respective country of origin, is still difficult. A large number of models for the calculation of the energy-content of certain products exist, yet generally with significant differences in results. Eventually, a harmonised standard applicable to a large number of countries would be needed to minimise conflicts and improve planning by market participants.¹³

Any border tax adjustment on the embodied carbon in imports or exports would be the more complex and difficult to administer the more products and production processes are to be covered. One approach to reducing complexity could be to limit the number of products subject to border tax adjustment to a manageable level. A small range of energy-intensive products with a correspondingly limited number of production methods could

¹⁰ This is also supported by Demaret and Stewardson (1994: 31).

¹¹ This conclusion might differ, however, from the ruling in the *US Superfund Tax* case and other cases, which adopted a formalistic view, arguing that only the form of taxation (for example direct or indirect), but not the purpose of the tax matters for its justification under GATT.

¹² Supported also, as for exports, by the study of Pitschas (1995: 495).

¹³ Ismer and Neuhoﬀ (2004) discuss border adjustments in the context of emission trading schemes and develop a method of estimating the costs of emission trading that are embodied in products. They focus on estimating only the carbon incorporated in the raw materials used as input in the production process while treating electricity as a homogeneous commodity. While this approach solves many problems of quantifying the embodied carbon in final products, it cannot be fully applied to the case of adjusting energy taxes on the border, especially when one looks at the growing trend of implementing differentiated energy taxes in the context of market installation strategies for renewable electricity sources. In this context electricity is not a homogeneous commodity.

make it substantially easier to administer the tax. This is seen as a feasible solution by a number of observers.¹⁴ One approach to manage the problem, as Hoerner and Muller (1997: 165) suggest, could be to use an energy-added tax method, similar to invoice methods for value-added tax that are used in many countries throughout Europe: a tax imposed on fuels, or embodied in the electricity used in the production process, could be recorded on the invoice that the domestic manufacturer presents after export of the product to tax authorities for rebate. To avoid unmanageable administrative burdens, one could refrain from such border adjustments when the tax is only a trivial percentage of the product price.¹⁵

In the case of imports where the necessary information on the production process is limited or not provided by the exporter, the 'predominant national method' approach seems to be a feasible approach compatible with world trade law. The panel in the *US Superfund Tax* case found this method to be consistent with GATT. It only rejected the 5 per cent flat tax that was imposed on unlisted substances, arguing that this imposed a higher tax on imports than on like domestic products.

Of course, the optimal solution for potential conflicts between WTO members would be to make the adjustment unnecessary in the first place. The harmonisation of environmental prior-stage taxes across countries would eliminate all grounds for border tax adjustments. This, however, would require intense international co-operation and an internationally harmonised approach in energy policy. In the current political situation, such a development is unlikely. The second-best option for members of the Kyoto coalition, then, might be to enact border adjustments for their current and future energy tax schemes vis-à-vis countries that do not ratify the Kyoto agreement. Despite legal ambiguities and uncertainties, world trade law would most likely prove to permit such actions.¹⁶

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¹⁴ See for example Hoerner and Muller (1997), Hoerner (1998), Brack et al. (2000).

¹⁵ In the case of the BTU tax legislation introduced in 1993, it was proposed to apply border adjustments on all goods for which the cost of energy exceeded two percent of the cost of production. Hoerner (1998: 15).

¹⁶ Dröge and Kempfert discuss further questions linked to the relationship of trade measures and climate change policies in their contribution in this issue.

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