Emissions trading – proposals for further development with special focus on measures in energy-intensive industrial sectors

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Introduction

Differences in national climate protection policies can lead to unequal treatment of greenhouse gas emissions, with companies in countries that pursue ambitious climate policies feeling that they are at a competitive disadvantage. Depending on the actual burden and the level of intensity of international competition, this can lead to a loss of market share to foreign competitors or to the outsourcing of production capacities. Such outsourcing of production reduces the effectiveness of domestic climate policy, as part of the reduction in emissions at home is countered by an increase in emissions abroad – the so-called ‘carbon leakage’. This happens, for example, when a domestic company outsources its production to a country that has a less stringent climate protection policy and does not have its own emission cap, or if a company from this country wins market share at the cost of a domestic company – provided that the change can be clearly attributed to the differences in climate policy.

There is no consensus amongst scientists and politicians regarding the actual and forecast extent of carbon leakage.¹ The actual burden imposed by climate policy, the intensity of competition and the level of mobility of companies vary considerably from one country to the next and from one sector to the next. Decisions on where to locate a business are very complex, incorporating a range of different factors. The environmental and climate policy frameworks are just some of these factors, and their significance can vary substantially depending on the sector in question. Other factors that often have a much greater influence on decisions of where to locate a business than energy or climate policy include tax regulations or labour market policy. Studies have shown that the number of sectors affected by carbon leakage is relatively low. In Germany and the UK, for example, they account for only approximately 1-2% of gross domestic product.² The first commitment period of European emissions trading did not lead to any carbon leakage in empirical terms. Nevertheless the possibility cannot be ruled out that certain subsectors could be strongly affected by climate policy in the future.

In light of this situation, various measures are under discussion to compensate the companies and sectors affected and to reduce the risk of carbon leakage as a result. One

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² Hourcade 2007, Graichen 2008
model under consideration involves direct compensation, which could take the form of free allocation of emission allowances as well as direct payments to the industries affected. Border Adjustment Measures (BAM) are also under discussion. BAM could take the form of (1) a duty by an importer to purchase allowances, (2) a tariff on imports at the time of entry and/or (3) relief granted on exports at the time of exit.

The revised Emissions trading directive 2009/29/EC provides various options for taking measures in favour of sectors at risk of carbon leakage:

- Pursuant to Article 10a (6) of the Directive, Member States can adopt compensatory financial measures in favour of sectors or subsectors “determined to be exposed to a significant risk of carbon leakage due to costs relating to greenhouse gas emissions passed on in electricity prices”. This relates only to what is referred to as “indirect leakage”, i.e. industrial electricity customers (which often do not fall under the scope of emissions trading themselves).

- For sectors which themselves take part in emissions trading and which are exposed to a significant competitive disadvantage through the purchase of allowances, the Directive provides for relief measures. While the free allocation for industrial installations is generally to be reduced, Article 10a (12) states that installations in sectors or subsectors which are exposed to a significant risk of carbon leakage will continue to be allocated a large percentage of allowances free of charge. This percentage amounts to 100% of the quantity that the corresponding installations would have received in accordance with the corresponding benchmark. However, Article 10 b (1) provides for a different type of relief. Under the Article, the European Commission is to assess, by 30 June 2010, which (sub)sectors are exposed to significant risks of carbon leakage and make proposals concerning how to deal with this situation. In addition to the free allocation already mentioned in Article 10a (12), possible approaches also include border adjustment measures. Accordingly, importers of products which are produced by the sectors or subsectors identified in accordance with Article 10a could be included in the Community scheme. In addition, according to recital (25), an effective “carbon equalisation system could be introduced with a view to putting installations from the Community which are at significant risk of carbon leakage and those from third countries on a comparable footing”.

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3 A 100% allocation is subject to the decision under Art. 10b.
The entire political but also scientific debate on the issue of carbon leakage is focused on competitive aspects. The political proposals or measures passed aim in particular to prevent the loss of market share, the outsourcing of production capacities and the related job cuts. In our view, the concern that different climate protection policies will lead to carbon leakage and thus reduce the effectiveness of national climate protection policy plays a subordinate role. Various studies and models also assume that BAM or other adjustment measures have little or no potential to reduce global greenhouse gas emissions.

Despite these doubts surrounding its relevance for competitive and environmental policy, carbon leakage is a central issue in the debate on climate policy. Both actual and alleged competitive disadvantages play a pivotal role in climate policy. The political price for the burden of individual sectors can be very high, even if the significance of these sectors for the national economy as a whole is minor. This is because even the closure of individual sites has strong resonance in media and in politics – so the disappearance of entire industries could have larger repercussions.

Against this background, this jurisprudential study examines the extent to which the various adjustment measures discussed are compatible with European and international law. The structure of the study is as follows: in a first step, the legal admissibility of direct compensation measures is examined, i.e. in particular the legal admissibility of the free allocation of allowances and direct payments to companies and sectors affected. The yardstick used to examine these measures is, in particular, EU and WTO legislation on state aid. The next section of the study examines the legality of BAM, i.e. in particular the inclusion of importers in the European emissions trading system as well as tariffs on imports at the border. International trade law regulations are particularly relevant here. The final section of the study contains a discussion of the extent to which individual measures work appropriately together with other instruments. Although the focus of the study as a whole is on the legal assessment, initial statements are made regarding the practicality and political enforceability of the various proposals. Unlike a range of prior studies, this study carries out an examination based on refined implementation options. Nevertheless a detailed elaboration as would be required in a legislative process exceeds the scope of this study. The study does not examine any (major) points of detail of national law. This English version of the study is a translation from German. In case of contradictions, the German original prevails.

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4 See for example Hilbert, Berg, page 3

5 Fischer; Fox, 2009, page 2 – 3; Whalley, 2009, page 8; for a more positive outlook: Hoerner, 1998, page 15
2 State aid

The state aid rules assessment focuses on two provisions in Article 10a of Directive 2009/29/EC. The first is Article 10a (6), which provides for financial measures by Member States in favour of certain energy-intensive sectors or subsectors (hereinafter referred to as “financial compensation measures” for short). The second is Article 10a (12), which provides for certain energy-intensive sectors or subsectors to be allocated allowances free of charge during a certain period (hereinafter referred to as “free allocation of allowances” for short). The two provisions differ in terms of their substantive scope and effect:

- According to Article 10a (14), the “free allocation of allowances” is to compensate for both the “direct cost of the required allowances” and “the indirect costs from higher electricity prices” (provided that these costs “result from the implementation of this Directive”). By contrast, the “financial compensation measures” by Member States according to Article 10a (6) are to solely compensate for “costs relating to greenhouse gas emissions passed on in electricity prices”, i.e. the indirect costs. Consequently the “financial compensation measures” instrument only deals with indirect costs due to higher electricity prices and thus has a narrower substantive scope than the “free allocation of allowances” instrument.

- The “free allocation of allowances” is binding and does not grant the Member States any discretionary scope in terms of whether free allocation can take place. This is because Article 10a (12) states that the allowances “shall be” allocated free of charge by the Commission to certain sectors or subsectors. By contrast, the introduction of “financial compensation measures” is left to the discretion of the Member States: Article 10a (6) states that Member States “may” introduce such measures. Consequently the energy-intensive sectors or subsectors defined by the

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6 The free allocation of allowances takes place subject to the measures to be taken pursuant to Article 10b. However, Article 10b does not change the binding nature of free allocation. At most it leads to an adjustment of the share of the allocations to be allocated free of charge by the Member States.

7 The wording of the English version of Article 10a (12) in Directive 2009/29/EC is “shall be allocated”; the English version thus confirms the interpretation on the basis of the German version.

8 The wording of the English version of Article 10a (6) in Directive 2009/29/EC is “may”, which thus corresponds to the German version. Recital (27) in Directive 2009/29/EC (OJ EU L 140/63 dated 5 June 2009; hereinafter referred to as “Directive 2009/29/EC” for short) amending Directive 2003/87/EC states: “Member States may deem it necessary to temporarily compensate certain installations which have been determined to be exposed to a significant risk of carbon leakage for costs related to greenhouse gas emissions passed on in electricity prices” (emphasis added added).
Commission will receive free allowances in the whole of the EU, while the financial compensation measures will not be adopted in the whole of the EU – at least not automatically.\(^9\)

The aforementioned differences between Article 10a (6) and Article 10a (12) demonstrate that financial compensation measures on the one hand and free allocation of allowances on the other constitute instruments that are different from a legal perspective and that must be clearly separated from each other. While both instruments potentially create a benefit for the energy-intensive sectors or subsectors in question, this would only relate to the economic effect of these two instruments, but does not provide any indication of whether the two instruments must be kept separate in a legal sense. The wording of each of the instruments (“financial compensation measures” and “free allocation of allowances”) and their different position within Article 10a (provision for financial compensation measures in paragraph 6 and provision for free allocation in paragraph 12 et seq.) both suggest that a distinction must be made between the two instruments. The free allocation of allowances constitutes an exception to the basic constellation of “Auctioning of allowances”\(^10\) regulated in Article 10 while at the same time limiting itself to such. By contrast to free allocation, financial compensation measures are measures (unlike the free allocation of allowances) of a purely financial nature, regardless of whether these entail direct financial benefits (energy price subsidies) or the reduction of financial burden (reduction of or exemption from environmental taxes). This follows not only from the word “financial”, but also from the fact that these measures are intended to “compensate” for the costs relating to greenhouse gas emissions passed on in electricity prices;\(^11\) this type of compensation mechanism is contingent upon the measures in question being of a financial nature.

The provisions in Article 10a (6) and (12) will be assessed below due to their principally favouring nature for the energy-intensive sectors or subsectors identified by the Commission in terms of their compatibility with Community rules on state aid and the WTO Agreement on Subsidies and Countervailing Measures (hereinafter referred to as “SCM Agreement”). The first step will involve a review of the free allocation of allowances (Article 10a (12)), followed by an examination of direct payments to companies involved (Article 10a (6)).

\(^9\) This discrepancy between the two instruments is likely to stem from the fact that financial compensation measures lead to a (direct) burden on the Member States’ budgets and should therefore fall primarily within the decision-making power of the Member States; they also have potential to distort competition and this must be limited if possible.

\(^10\) Recital (15) in Directive 2009/29/EC describes the auctioning of allowances as the “basic principle for allocation”.

\(^11\) Recital (27) in Directive 2009/29/EC speaks of “temporarily compensating installations … for costs related to greenhouse gas emissions passed on in electricity prices” (emphasis added).
It would appear logical to examine the measures specified against (internal) Community rules on state aid, in particular as Article 10a (6) expressly requires the financial compensation measures to be compatible with the “state aid rules applicable and to be adopted in this area”. At first glance, it does not seem quite so obvious to examine these measures against the (external) SCM Agreement. This becomes relevant in the context of the carbon leakage issue, however, because this is in its core an international issue, as paragraphs 14 to 18 of Article 10a very clearly demonstrate.\footnote{The intensity of trade with third countries is one of the key criteria for evaluating whether a sector or subsector is exposed to significant risks of carbon leakage; also the scope of the greenhouse gas emissions reduction to which the third country commits (for which a significant portion relates to the manufacture of products in sectors or subsectors for which the Commission has identified a carbon leakage risk) can be taken into account by the Commission when determining which energy-intensive sectors or subsectors to favour.}

It should be emphasised in advance that Community rules on state aid and the SCM Agreement define the terms “aid” and “subsidy” using similar characteristics and the difference between the two systems of aid is thus minor on the whole.\footnote{Nevertheless the definition of a subsidy in Article 1 of the SCM Agreement does not include the feature of “selectivity” of the subsidy, which is included in Article 107 (1) TFEU; pursuant to Article 1.2 of the SCM Agreement, however, a subsidy is subject to the provisions of the SCM agreement in Parts II, III and V of the Agreement only if it is “specific” in accordance with Article 2 of the SCM Agreement.} However, the two systems differ more significantly in terms of the legal consequences that they attach to the existence of aid or a subsidy: Community rules on state aid generally prohibits any type of aid, but allows a relatively wide range of exceptions to this rule.\footnote{Article 107 TFEU is a typical rule-and-exception provision: it prohibits aid to Member States but this prohibition allows for both legal and discretionary exceptions.} By contrast, the SCM Agreement only prohibits export subsidies and import substitution subsidies,\footnote{Article 3.1 of the SCM Agreement} while all other subsidies are not prohibited per se, but are nevertheless actionable.\footnote{The actionability of a specific subsidy (not prohibited by Article 3) is based on the criteria set out in Articles 5 and 6 of the SCM Agreement.} In light of this situation, it appears quite feasible that an examination of the measures under discussion against Community rules on state aid on the one hand and the SCM Agreement on the other will yield differing results.
2.1 Free allocation of allowances pursuant to Article 10a (12) in Directive 2009/29/EC

The primary focus on examining the free allocation of allowances for their compatibility with Community state aid rules on the one hand and WTO state aid provisions on the other is necessary because the free allocation of allowances to the energy-intensive sectors or subsectors identified by the Commission is obligatory pursuant to Article 10a (12) (whereas the granting of financial compensation measures is not).

2.1.1 Community rules on state aid

The examination against Community rules on state aid must first determine whether the free allocation of allowances actually qualifies as aid as defined by Article 107 (1) TFEU (Treaty on the Functioning of the European Union). There are two questions to answer here: (1) does the substantive scope of this provision apply in this context and, if so, (2) are the prerequisites of this provision met?

2.1.1.1 Applicability of Article 107 (1) TFEU

The prohibition of aid in Article 107 (1) TFEU only applies to aid that is attributable to a Member State. Aid is not imputable to a Member State if the Member State has a clear and precise obligation to transpose Community law into national law without any scope of discretion of its own.17

Article 10a (12) sets out a clear and precise obligation for the Member States to allocate free allowances to certain energy-intensive sectors or subsectors; the Member States have no discretion of their own in this regard.

It is questionable, however, whether the Member States have discretion – possibly restricted – regarding the form that free allocation takes (the “how” of free allocation). Free allocation should be “at 100% of the quantity determined in accordance with the measures referred to in paragraph 1”. Paragraph 1 provides for the adoption of Community-wide and fully harmonised implementing measures by the Commission, among other things for the free

17 Court of First Instance, Case T-351/02, para.101 – 102.
allocation of allowances. The adoption of *fully harmonised* implementing measures by the Commission suggests in principle that the Member States do not have any discretion in the free allocation of allowances. Nevertheless it is not possible to rule out such discretion entirely. In particular it is not yet clear whether the implementing measures by the Commission envisaged in paragraph 1 will actually lead to “full” harmonisation of the free allocation of allowances. Therefore it is possible that the Member States may have scope of discretionary – albeit restricted – in terms of how the free allocation of allowances takes place.

In this case the **substantive scope of Article 107 (1) TFEU would apply.**

### 2.1.1.2 Prerequisites of Article 107 (1) TFEU

According to the **legal definition in Article 107 (1) TFEU**, the following criteria decide *cumulatively* whether aid is considered to exist:

- Transfer of State resources
- Economic advantage
- Selectivity
- Effect on competition and trade.\(^{18}\)

**Transfer of State resources**

The first question is whether the free allocation of allowances constitutes a **transfer of State resources**. The term “State resources” includes not only mere financial (monetary) aid by the State (subsidies in the narrower sense), but all state (or state-initiated) measures that have an economic value (regardless of its nature).\(^{19}\) The free allocation of allowances generates an **economic value** for the installations or their operators that receive these allowances, because the allowances entitle the holder to “emit one tonne of carbon dioxide equivalent during a specified period” (in relation to one allowance) and are also transferable.\(^{20}\) The free allocation of allowances to installations or their operators thus constitutes a transfer of State resources as defined by Article 107 (1) TFEU.

\(^{18}\) See 2., page 5 et seq., Vademecum Community Rules on State Aid (as of 30 September 2008).


\(^{20}\) See Article 3 a) and Article 12 (1) in Directive 2003/87/EC.
Economic advantage

This poses the further question of whether the free allocation of allowances gives rise to an economic advantage for the installations or their operators to which the allowances are allocated. An economic advantage as defined by Article 107 (1) TFEU is always deemed to exist if the recipient does not give any market consideration in return for the State resources granted to it. Measured against this rule, the free allocation of allowances gives rise to an economic advantage for the installations concerned or their operators, because they do not give any consideration at all, let alone consideration that is customary for the market.

Selectivity

According to Article 107 (1) TFEU, however, economic advantages are only material if they have a selective effect, i.e. they favour certain undertakings or the production of certain goods “in comparison with other undertakings which are in a legal and factual situation that is comparable in the light of the objective pursued by the measure in question”. By contrast, such selectivity does not exist if the measure in question “although conferring an advantage on its recipient, is justified by the nature or general scheme of the system of which it is part”.

The free allocation of allowances only benefits those installations or their operators that belong to energy-intensive sectors or subsectors exposed to significant risks of carbon leakage according to the Commission. Therefore it can be generally assumed that the free allocation of allowances for the sectors or subsectors subsidized constitutes a selective measure (which is thus relevant from a state aid rules perspective).

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21 This is known as the principle of reasonable pricing relative to the market, see Heidenhain, in: Heidenhain (ed.), Handbuch des Europäischen Beihilfenrechts (2003), § 4, point 2; Mestmäcker/Schweitzer, § 43, point 12.


23 ECJ, Case C-143/99, point 41 (and further references to ECJ rulings).

24 ECJ, Case C-143/99, point 42 (and further references to ECJ rulings); see also Case C-351/98, point 42 (differential treatment of undertakings in the application of charges does not constitute aid where the differential treatment flows from the nature or objective of the system of charges in question); Case C-53/00, point 17 (differential treatment of undertakings does not imply the existence of an advantage for the purposes of state aid where the difference in treatment is justified by reasons relating to the logic of the system); Case T-233/04, point 97-98 (concerning an emissions trading scheme for nitrogen oxides). See also Beljin, § 28, point 56; Mestmäcker/Schweitzer, § 43, point 53 et seq.
However, the free allocation of allowances to certain energy-intensive sectors or subsectors is part of the nature or the general scheme of the emissions trading system. The aim of the emissions trading system is to contribute to “fulfilling the (international) commitments of the European Community and its Member States (under the Kyoto Protocol) more effectively, through an efficient European market in greenhouse gas emission allowances, with the least possible diminution of economic development and employment”. The purpose of the free allocation of allowances to certain energy-intensive sectors or subsectors is to prevent carbon leakage to third countries that do not have any carbon constraints comparable to the EU emissions trading system.

In light of this fact, it is permissible to classify the free allocation of allowances to certain energy-intensive sectors or subsectors as a measure that conforms to or is inherent in the system – at least at the present point in time. As a result, this measure does not provide the requisite selectivity as defined under state aid rules. However, this conclusion is based on the assumption that all energy-intensive sectors or subsectors that are in fact exposed to significant risks of carbon leakage pursuant to the criteria of Article 10a will be allocated free allowances without exception. Whether or not this assumption is actually correct cannot be verified here. Yet this matter is authoritative for the question of whether the free allocation of allowances constitutes a measure that conforms to or is inherent in the system.

The above conclusion is supported by the following additional consideration: Those energy-intensive sectors or subsectors exposed to significant risks of carbon leakage are determined based on an assessment “at Community level”. This should (at least in theory) lead to a situation where, Community-wide, all installations (or their operators) from these sectors or subsectors receive free allowances without exception and are thus in a “legal and factual situation that is comparable”. This would mean that at least the competition between these installations or their operators Community-wide is not distorted by the free allocation of

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25 Recital (5) in Directive 2003/87/EC.

26 Recital (24) in Directive 2009/29/EC. This double component of the “carbon leakage” problem – the environmental component and the competitive component – is generally recognised, although the real weight of the problem is mostly assessed rather modestly, see for example ICTSD Information Note No 16, December 2009; OECD Policy Brief, August 2009; WTO-UNEP Report, page 99 et seq.

27 Reference is made in this regard to Article 10b (1) in Directive 2009/29/EC, which obliges the Commission to present an analytical report by 30 June 2010 “assessing the situation with regard to energy-intensive sectors or subsectors that have been determined to be exposed to significant risks of carbon leakage”. The Commission is also to submit proposals on how to proceed.

28 Article 10a (14) Sentence 1 in Directive 2009/29/EC. The Commission has already prepared a draft list with 164 sectors or subsectors that are exposed to significant risks of carbon leakage in its opinion; approximately one quarter of all greenhouse gas emissions covered by the EU emissions trading system relates to these sectors or subsectors (press release by the Commission dated 18 September 2009, IP/09/1338).
allowances. Under Article 107 (1) TFEU, however, a measure is only classified as aid if it distorts or threatens to distort competition.

2.1.1.3 Interim finding

The free allocation of allowances by the Member States is a state measure that must be assessed on the basis of Article 107 (1) TFEU. This measure conforms to the emissions trading system of the EU or is inherent in that system. Consequently it does not exhibit the selectivity required in order to qualify as aid. Therefore the measure does not constitute aid in accordance with Article 107 (1) TFEU.

Hardship clause: Free allocation of allowances of more than 100%?

The free allocation of allowances could have a selective effect in terms of the definition of aid under Article 107 (1) TFEU if Member States were to introduce a hardship clause in their national law according to which individual installations or their operators from energy-intensive sectors or subsectors could receive more than 100% of the quantity of allowances to which they are entitled in accordance with the ex-ante benchmarks to be set out by the implementation measures by the Commission. However, Article 10a (12) states that the allowances are allocated “free of charge at 100% of the quantity determined in accordance with the measures referred to in paragraph 1”. This means that the Member States can only allocate a certain quantity of free allowances for each installation or operator, namely 100%. Any hardship clause in the national law of the Member States that would allow for the free allocation to certain installations at more than 100% would be incompatible with this binding legal provision. This provision corresponds to the general scheme of the European emissions trading system.

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29 For an opposing opinion see Kerber, “Klimapolitik versus Wettbewerb”, FAZ dated 25 November 2009, page 10. However, Kerber misinterprets the mechanism for the free allocation of allowances.

30 The English wording is “allowances free of charge at 100% of the quantity determined in accordance with the measures referred to in paragraph 1”.

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2.1.2 WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement)

2.1.2.1 Applicability of the SCM Agreement

The SCM is applicable to all measures by the WTO members that meet the definition of a subsidy contained in Article 1.1 of the SCM Agreement. This definition of a subsidy applies uniformly for the entire SCM Agreement and determines whether the relevant measures by a WTO member must be measured against the further provisions of this Agreement. For this reason the free allocation of allowances must be examined in order to determine whether it falls under the definition of a subsidy contained in the SCM Agreement.

2.1.2.2 Definition of a subsidy (Article 1 of the SCM Agreement)

Article 1.1 of the SCM Agreement defines a subsidy for the purposes of the Agreement on the basis of the following criteria:

- State measure
- Financial contribution and
- Benefit to the recipient.

State measure

As explained in the assessment from the perspective of Community law on state aid, the free allocation of the allowances constitutes a state measure; the same assessment applies in the context of the SCM Agreement in this regard. Even if one were to attribute the free allocation of allowances not to the Member States as a state measure but to the European Union, this would not change in any way the ‘state’ nature of this measure for the purposes of the SCM Agreement. This is because (legally binding) measures by the EU bodies are equivalent to (legally binding) measures by the governments of other WTO members, as the EU is an independent WTO member.

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32 See van den Bossche, section 6.3.2., page 562; WTO, World Trade Report, page 196.
Financial contribution

It must therefore be clarified whether this state measure constitutes a “financial contribution”.³³ Article 1.1 (a) of the SCM Agreement provides a *numerus clausus* of measures that qualify as a “financial contribution” pursuant to the SCM Agreement.³⁴ The first variant – the direct or potential direct transfer of state funds – must be interpreted *more narrowly* than the transfer of State resources pursuant to Article 107 (1) TFEU. Unlike that standard, Article 1.1 (a) of the SCM Agreement does not cover every granting of an economic advantage, but only the (potential) direct transfer of financial funds.³⁵ This variant therefore does not apply in the case at hand, because the allowances are not financial funds, irrespective of their economic value and tradability. Any windfall profits resulting from the free allocation of allowances are equally not financial funds as defined by Article 1.1 (a) of the SCM Agreement; in other respects they do not constitute a “direct” transfer of state funds.

The second variant – the foregoing or non-collection of government revenue that is otherwise due – covers cases in which the state foregoes income to which it is entitled.³⁶ This variant could be relevant here because the Member States forego revenue through the free allocation of allowances that they would otherwise realise by auctioning these allowances.

However the Appellate Body (AB) pointed out that the foregoing by a state of the revenue to which it is actually entitled can only be ascertained on the basis of a “defined, *normative benchmark*” that would allow for a comparison between the “revenue actually raised and the revenue that would have been raised otherwise”.³⁷ This comparison therefore presupposes a “rational basis” in order to ensure that “in this comparison, like will be compared with like”.³⁸

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³³ Article 1.1 of the SCM Agreement speaks of “financial contribution”.

³⁴ See Adamantopoulos, in: Wolfrum et al. (eds.), WTO. Trade Remedies, page 428, para. 11; Grave, page 137; Croome, page 92.

³⁵ See Adamantopoulos, page 430 et seq., para. 19 et seq.

³⁶ The English term “revenue” and the example of “tax credits” mentioned in the text of the Agreement clearly express that the foregoing does not relate to levies in the narrower sense, but to state income in the broader sense. See also Adamantopoulos, page 433, para. 31 et seq. Foregoing a profit which an EU Member State could normally realise and which results in an advantage for a business party also constitutes aid under EU rules on state aid, ECJ, Case C-143/99, point 39.


A normative benchmark is thus needed for the emissions trading Directive that provides a rational basis for a comparison of the free allocation of allowances on the one hand and the auctioning of allowances on the other hand in order to assess whether the Member States are foregoing revenue through the free allocation of allowances that they would otherwise raise. This normative benchmark is provided by Article 10 (1), which states that the Member States (auction) “all allowances which are not allocated free of charge in accordance with Article 10a and 10c” (emphasis added). Consequently the auctioning of allowances constitutes the rule and the free allocation of allowances constitutes the exception.\(^{39}\) The free allocation of allowances thus leads to a foregoing by the Member States of revenue that they would otherwise have raised by way of auction, and must therefore be considered a “financial contribution” pursuant to Article 1.1 (a) of the SCM Agreement.

**Benefit to the recipient**

According to Article 1.1 (b) of the SCM Agreement, the financial contribution must result in a benefit to the recipient of the contribution. This benefit shall be deemed to exist if the recipient received the financial contribution at conditions that are more favourable than the conditions customary for the market.\(^{40}\) The free allocation of allowances gives rise to such a benefit because the installations or their operators from the energy-intensive sectors or subsectors exposed to significant risks of carbon leakage according to the Commission receive free allowances that they would otherwise have to buy in an auction. This means that they receive the allowances at conditions that are better than the conditions customary on the market for allowances.\(^{41}\)

**2.1.2.3 Specificity of the subsidy (Article 2 of the SCM Agreement)**

However, the classification of a state measure as a subsidy under the definition of a subsidy in the SCM Agreement is only relevant if the subsidy in question must be classified as specific in accordance with the criteria of Article 2 of the SCM Agreement.\(^{42}\) This is the case

\(^{39}\) Recital (15) in Directive 2009/29/EG confirms this finding, as it states that the auctioning of the allowances should be “the basic principle for allocation”. Approximately 25% of all greenhouse gas emissions covered by the EU emissions trading system relates to the energy-intensive sectors or subsectors included by the Commission in its draft list to date, see press release by the Commission dated 18 September 2009 (IP/09/1338).

\(^{40}\) Appellate Body, WT/DS70/AB/R, *Canada – Aircraft*, para. 157), confirmed in WT/DS138/AB/R, *US – Lead and Bismuth II*, para. 68. Referred to as the “private investor test”, see Matsushita/Schoenbaum/Mavroidis, page 346 et seq.; see also Herrmann, § 14, point 691; WTO, World Trade Report 2006, page 197.

\(^{41}\) The fact that the market for allowances is created by regulatory means is irrelevant because the auction should, pursuant to Article 10 (4) in Directive 2009/29/EG, be conducted in an open, transparent, harmonised and non-discriminatory manner in order to ensure genuine pricing that is not influenced by the state. The fact that the free allocation of allowances does not constitute aid under the EU rules on state aid is also irrelevant because Article 107 (1) TFEU and Article 1.1 of the SCM Agreement are not identical in law – irrespective of their comparability.

\(^{42}\) See Article 1.2 of the SCM Agreement. For details on the rationale of this feature, see Grave, page 193 et seq.
if the subsidy concerned is enterprise-specific or industry-specific.\textsuperscript{43} According to Article 2.1 (a) of the SCM Agreement, this case must always be deemed to exist if the subsidy is only accessible to certain (selected) enterprises or industries.\textsuperscript{44} This would appear to be the case here \textit{prima facie} on account of the fact that “access” to the subsidy in the form of free allocation of allowances is only open to certain energy-intensive sectors or subsectors that the Commission has classified as being exposed to significant risks of carbon leakage according to Article 10a (12).

Subsidies do not qualify as specific, however, if they are granted based on \textbf{objective, legally determined and verifiable conditions} that set out both the eligibility for and the amount of a subsidy, provided that the criteria and conditions are strictly adhered to and the eligibility is automatic.\textsuperscript{45} Such conditions are deemed objective if they are neutral and do not favour certain enterprises over others and are economic in nature and horizontal in application.\textsuperscript{46} In terms of the free allocation of allowances, that means:

- The conditions for free allocation of allowances are thus set out legally and verifiably in Article 10a. These conditions decide on both the entitlement to the free receipt of allowances and \textit{on principle} – irrespective of any discretionary powers of the Member States – on the quantity of the free allowances to be allocated to the subsidy recipients, i.e. the subsidy amount. The energy-intensive sectors or subsectors listed in the relevant list by the Commission are automatically entitled to receive free allowances, as Article 10a (12) does not give the Member States any discretion as regards whether allowances are allocated.

- The conditions in question are also \textit{objective} as defined by Article 2.1 (b) in conjunction with footnote 2 to the SCM Agreement because the conditions are neutral and do not favour certain enterprises over others.\textsuperscript{47} Authoritative factors for assuming

\textsuperscript{43} Pursuant to Article 2.1 of the SCM Agreement, a subsidy is also specific if it is granted to a \textit{group} of enterprises or industries; see also WTO, World Trade Report 2006, page 198. Region-specific subsidies are a subcategory of enterprise-specific and industry-specific subsidies, see Pitschas, in: Priess/Berrisch (eds.), WTO-Handbuch (2003), page 458, para. 70.

\textsuperscript{44} According to Article 2.1 (a) of the SCM Agreement, it is irrelevant whether the group of subsidy recipients is (already) limited due to the statutory basis of the subsidy or (only) due to the granting authority.

\textsuperscript{45} Article 2.1 (b) of the SCM Agreement.

\textsuperscript{46} Footnote 2 to Article 2.1 (b) of the SCM Agreement. The neutrality of the conditions and their non-favouring of certain enterprises on the one hand and their economic nature and horizontal applicability on the other are terms that belong together due to their proximity, in this respect see also Evtimov, in: Wolfrum et al. (eds.), WTO. Trade Remedies, page 462, para. 33 - 34.

\textsuperscript{47} Conditions are neutral when they are non-discriminatory, see Evtimov, page 462, para. 33.
significant risks of carbon leakage (and thus inclusion in the Commission’s list of sectors or subsectors that must be allocated free allowances) include an increase in production costs on the one hand and the intensity of trade with third countries on the other.\textsuperscript{48} These two criteria are neutral, i.e. non-discriminatory, and do not lead to certain enterprises being favoured over others.\textsuperscript{49} The possibility of updating the list annually does not counteract this, because the Commission can only add further sectors or subsectors to this list if “it can be demonstrated, in an analytical report, that this sector or subsector satisfies the criteria in paragraphs 14 to 17, following a change that has a substantial impact on the sector’s or subsector’s activities”.

- Finally, the conditions concerned are economic in nature and horizontal in application. Both the increase in production costs as a result of the direct and indirect costs caused by implementation of Directive 2003/87/EG and the intensity of trade with third countries are purely economic circumstances and are also kept general enough so that they are horizontally applicable to every enterprise or industry regardless of the respective industry-specific aspects.

Thus, it is to be held that the free allocation of allowances does not constitute a specific subsidy pursuant to Article 2.1 of the SCM Agreement and is therefore compatible with the SCM Agreement.

### 2.1.3 Interim finding

The free allocation of allowances to energy-intensive sectors or subsectors exposed to significant risks of carbon leakage according to the Commission does not constitute aid as defined by Article 107 (1) TFEU because this measure conforms to or is inherent in the emissions trading system – at least at present. While the measure does qualify as a subsidy under the SCM Agreement, it does not demonstrate the specificity required for the purposes of this Agreement. The measure therefore complies with the commitments from the SCM Agreement.

\textsuperscript{48} Paragraphs 17 and 18 of Article 10a in Directive 2009/29/EC list further criteria that must be taken into account (paragraph 18) or can be taken into account (paragraph 17) when preparing or supplementing the list by the Commission. However, these criteria only supplement the main criteria mentioned in the text if applicable and are therefore not discussed in any further detail here.

\textsuperscript{49} Naturally the application of these criteria leads to a selection, but this selection does not mean that certain enterprises are (intentionally) “favoured” as defined by Article 2.1 (b) in conjunction with footnote 2 to the SCM Agreement.
2.2 Financial compensation measures pursuant to Article 10a (6) in Directive 2009/29/EC

2.2.1 Community law on state aid

2.2.1.1 Financial compensation measures as aid

According to Article 10a (6) subparagraph 1, financial compensation measures are “financial measures” by the Member States in order to compensate the installations or their operators determined to be exposed to a significant risk of carbon leakage for the indirect costs incurred “due to costs relating to greenhouse gas emissions passed on in electricity prices”.

These financial compensation measures qualify as aid as defined by Article 107 (1) TFEU. This is because they involve a transfer of State resources that results in an economic advantage for the sectors or subsectors in question for which they do not give any market consideration, and which can affect competition and intergovernmental trade. The economic advantage created by financial compensation measures is also selective, because it can only be granted to those energy-intensive sectors or subsectors “determined to be exposed to a significant risk of carbon leakage due to costs relating to greenhouse gas emissions passed on in electricity prices”. Unlike the free allocation of allowances, financial compensation measures are not measures that conform to or are inherent in the system. For one, this is because “the indirect costs from higher electricity prices resulting from the implementation of this Directive” (Article 10a (14)) must (necessarily) already be taken into account by free allocation of allowances. Also, it does not appear proper to overly extend the topos of system conformity in the scheme of the EU emissions trading system, as otherwise the underlying objective of this system to establish “an efficient European market in greenhouse gas emission” with minimum distortion of competition within the Community would be at risk.

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50 Even if one were to assume that financial compensation measures could benefit such sectors or subsectors at risk of carbon leakage that do not fall under the scope of the EU emissions trading system, the topos of a measure that conforms to or is inherent in the system does not come under consideration at all because such sectors or subsectors are not part of this system (even if they are affected by it indirectly through higher electricity prices).

51 Recital (5) in Directive 2003/87/EC.

52 Recital (23) in Directive 2009/29/EC.
The assessment above is also confirmed by the fact that financial compensation measures can only be introduced “where such financial measures are in accordance with state aid rules applicable and to be adopted in this area” (Article 10a (6) subparagraph 1). This proviso means that in any case any financial compensation measure by a Member State must be assessed for compatibility with Community law on state aid. Otherwise it would not make sense to require compatibility with Community law on state aid. Also the proviso is kept unconditional and in particular does not depend on the structure of the financial compensation measures in the individual case.

2.2.1.2 Compatibility of financial compensation measures with the internal market

Article 10a (6) in the Directive links the compatibility of the financial compensation measures with the internal market to two general conditions: Firstly the financial compensation measures must be compatible with the Community state aid rules (see 2.2.1.2.1 below); and secondly these measures must be based on “ex-ante benchmarks of the indirect emissions of CO\textsubscript{2} per unit of production” (see 2.2.1.2.2 below).

2.2.1.2.1 Discretionary exception for environmental aid

Aid as defined by Article 107 (1) TFEU is generally “incompatible with the internal market”. However, this prohibition on aid does not apply without restriction. In fact, paragraphs 2 and 3 of Article 107 TFEU provide for exceptions to this prohibition: Paragraph 2 provides legal exceptions; paragraph 3 provides discretionary exceptions where the Commission as the authority responsible for assessing the aid has (broad) discretion with regard to the legal consequence, provided that the criteria of the exceptions contained in this paragraph are met.

The legal exceptions listed in Article 107 (2) TFEU are not relevant in the case of financial compensation measures. This is why only the discretionary exceptions pursuant to Article

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53 Only the compatibility of the financial compensation measures with the applicable EU state aid rules (de lege lata) is examined here, as nothing whatsoever is known of the content of future EU state aid rules (de lege ferenda).

54 See Vademecum Community Rules on State Aid, 3., page 6.

55 With the exception of Article 107 (3) lit. e) TFEU, according to which the Council has the decision-making power.

56 ECJ, Case C-351/98, point 74; see Cremer, in: Caliess/Ruffert (eds.), Art. 87, point 34; Koenig/Kühling, Streinz (ed.), EUV/EGV-Kommentar (2003), Art. 87, point 67. The Commission is also granted discretionary power in the interpretation of the vague legal terms contained in the third paragraph of the exceptions.
107 (3) TFEU come under consideration here, with Article 107 (3) lit. c) TFEU being particularly significant in this context. According to this standard, aid to facilitate the development of certain economic activities or of certain economic areas, where such aid does not adversely affect trading conditions to an extent contrary to the common interest, can be considered to be compatible with the internal market. The Commission uses this provision as a basis for the assessment of horizontal (as cross-sector) aid or programmes, a category to which aid for environmental or climate protection also belongs.57

The financial compensation measures constitute horizontal aid, as they cannot be granted to just one certain sector or subsector, but instead to all sectors or subsectors exposed to significant risks of carbon leakage according to the Commission due to indirect costs from higher electricity prices. The financial compensation measures must also be considered as aid that aims to protect the climate (although this is not the sole aim) – at least at present. 59

The Commission published Guidelines on State aid for environmental protection (hereinafter referred to as “guidelines”),60 which it applies in the “assessment of environmental aid”.61 These guidelines count as part of the “state aid rules applicable” as defined by Article 10a (6), not, however, as secondary legislation pursuant to Article 288 TFEU. They are legally significant because they have a binding effect on the Commission when exercising its discretion with regard to the exceptions pursuant to Article 107 (3) TFEU.62 This means that the Commission must adhere to the guidelines promulgated by it for the state aid category in question in any assessment of state aid.63 For this reason the guidelines must be given priority in assessments on the German side of whether the financial compensation measures can be deemed compatible with the internal market.

57 See Cremer, Art. 87, point 46; Koenig/Kühling, Art. 87, point 70.
58 See Vademecum Community Rules on State Aid, 3 b), page 8.
59 See recital (24) in Directive 2009/29/EC.
60 OJ EU, C 82/1, 1 April 2008.
61 Point 12 of the guidelines.
62 ECJ, Case C-351/98, point 76; see also Kreuschitz/Rawlinson, Art. 87, point 51; Mestmäcker/Schweitzer, § 44, point 19 (each with further references to ECJ/Court of First Instance rulings).
63 Naturally the prerequisite is that the guidelines in question do not depart from the higher-ranking Community law, ECJ, Case C-351/98, point 76; see also Jestaedt/Schweda, in: Heidenhain, § 14, point 36; Kreuschitz/Rawlinson., Art. 87, point 51.
Financial compensation measures within the meaning Article 10a (6) can basically take two forms: either as energy price subsidies (i.e. subsidies used to reduce the energy or electricity prices to below the market price) or as reductions of or exemptions from environmental taxes. Accordingly, the following assessment focuses on these two types of aid. It should be noted in advance that financial compensation measures pursuant to Article 10a (6) constitute operating aid irrespective of their individual form because they serve to reduce the running costs of an installation – in this case the energy or electricity price costs. The Commission generally adopts a very critical stance to such operating aid because of its large potential to distort competition and does not approve such aid; however the guidelines deviate from this in certain constellations.

2.2.1.2.1 Energy price subsidies

If financial compensation measures take the form of energy price subsidies, it must be assessed whether – and, if necessary, according to which prerequisites – such energy price subsidies can be deemed compatible with the internal market; the guidelines issued by the Commission must take priority in the course of this assessment.

Of the types of environmental aid expressly listed in the guidelines, only the type “aid involved in permit schemes” applies directly to energy price subsidies pursuant to Article 10a (6). In this regard the guidelines provide for the trading period after 31 December 2012 that such aid must be assessed according to whether it is both “necessary and proportional“. The guidelines set out certain criteria for this assessment. Although they are primarily tailored to the allocation of allowances at below market value, they are also at least partly significant for the energy price subsidies of interest to this discussion. The criteria relevant here require that:

- The choice of beneficiaries must be based on objective and transparent criteria

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64 It is possible that financial compensation measures could also take another form, but we do not have any indications of this.

65 Beljin, § 28, point 91; Koenig/Kühling, Art. 87, point 74; Mestmäcker/Schweitzer, § 44, point 18.

66 Point 56 of the guidelines. This correlates to recital (27) in Directive 2009/29/EC, which requires that financial compensation measures should only be granted “when ... necessary and proportionate”.

67 Points 140 and 141 of the guidelines.
• Full auctioning must lead to a **substantial increase in production costs** for each sector

• The substantial increase in production costs **cannot be passed on to customers** without leading to important sales reductions and

• **It is not possible** for individual undertakings in the sector to **reduce emission levels in order to render the price of the certificates affordable**.

The determination by the Commission of the sectors or subsectors exposed to significant risks of carbon leakage takes the aforementioned criteria into account. According to Article 10a (15) and (16), a significant increase of production costs either alone (increase of at least 30%) or in combination with the intensity of trade with third countries (increase of at least 5%) justifies including the sector or subsector in question in the Commission's list. The extent to which it is possible for individual installations in the sector or subsector concerned to reduce emission levels or electricity consumption, including – as appropriate – the increase in production costs, can be taken into account in the Commission’s assessment.\(^{68}\) The inclusion of a sector or subsector in the list implies that it is not affordable to obtain the allowances for installations from this sector or subsector through auction – at least not at present.

As to the granting of energy price subsidies by the Member States, this implies that they can generally assume that **such financial compensation measures are necessary and proportional**. This is because the identification by the Commission of sectors or subsectors exposed to significant risks of carbon leakage also applies in the context of the financial compensation measures. It is true that Article 10a (14) only makes express reference to paragraph 12 and thus primarily to the instrument of “free allocation of allowances”. Nevertheless the determination of the energy-intensive sectors or subsectors as part of Article 10a (14) et seq. is also significant for financial compensation measures (in the form of energy price subsidies) pursuant to Article 10a (6). For one, paragraph 6 refers to sectors or subsectors “determined to be” exposed to a significant risk of carbon leakage. It appears safe to assume that this determination relates to the identification by the Commission on the basis of Article 10a (14) et seq.\(^{69}\) In addition, identification of the sectors or subsectors by the

\(^{68}\) Article 10a (17) in Directive 2009/29/EC.

\(^{69}\) Reference is made in this regard to recital (27) in Directive 2009/29/EC concerning compensation for indirect costs as defined by Article 10a (6), which follows on directly from recitals (25) and (26), which deal with the identification of energy-intensive sectors or subsectors by the Commission. This approach supports the assumption that the wording “determined to be” in recital 27 and in Article 10a (6) relates to the identification by the Commission. This is also not contradicted by the fact that Article 10a (6) only refers to the indirect costs due to higher electricity prices, while Article 10a (14) also refers to the direct costs of the required allowances. This can be taken into account by the Commission by breaking down the list accordingly.
Member States (instead of by the Commission) for the purposes of Article 10a (6) would entail the risk that the group of sectors or subsectors would firstly be too broad and secondly would be different from one Member State to the next. It is very doubtful whether this would be compatible with the fact that financial compensation measures (in the form of energy price subsidies) are an exception as well as with the basic idea underlying the emissions trading system.70

If one were to assume, contrary to the view expressed above, that the identification of the energy-intensive sectors or subsectors by the Commission pursuant to Article 10a (14) et seq. does not apply under Article 10a (6), it would be the responsibility of the Member States to determine the sectors or subsectors that should generally be entitled to receive financial compensation measures in the form of energy price subsidies. When identifying the sectors or subsectors concerned, the Member States would however then be obliged to use as a base the aforementioned criteria resulting from the guidelines in order to ensure that energy price subsidies in favour of installations or operations in the selected sectors or subsectors are necessary and proportional.

As operating aid, energy price subsidies are subject to special requirements on account of their potential to distort competition.71 When viewed in their entirety, the guidelines are based on the principle that operating aid can only compensate for extra costs incurred by the undertaking on a net basis.72 This principle must be interpreted in this context such that energy price subsidies can only compensate for net extra costs that result for the installations concerned from “costs relating to greenhouse gas emissions passed on in electricity prices”. These net extra costs must be calculated based on “ex-ante benchmarks” that must be established in accordance with Article 10a (6) subparagraph 2 (see 2.2.1.2.2 below with regard to this point).

70 Recital (27) in Directive 2009/29/EG also points out that financial compensation measures should only be granted “temporarily”.

71 In 2007 the Commission ruled that a preferential electricity tariff granted by Italy to installations in the chemicals, steel and cement sectors constituted operating aid that distorted the competition with other manufacturers from the sectors in question and were thus unlawful; see press release by the Commission dated 20 November 2007 (IP/07/1727). In 2009 the Commission found that a special tariff for electricity granted by Italy to an aluminium producer constituted operating aid that was not compatible with Article 107 TFEU because it granted the recipient company an unfair competitive advantage over other manufacturers that did not receive any such operating aid and that no exception such as environmental protection applied; see press release by the Commission dated 19 November 2009 (IP/09/1750).

72 See point 99 et seq. of the guidelines in connection with aid for energy-saving measures; point 107 et seq. of the guidelines in connection with aid for the promotion of renewable energy sources; point 119 in connection with aid for cogeneration.
Interim finding

Financial compensation measures by the Member States in the form of energy price subsidies can be deemed compatible with the internal market pursuant to Article 107 (3) lit. c) TFEU in conjunction with the guidelines provided that they only compensate for the net extra costs incurred due to higher electricity prices; these extra costs must be calculated according to the “ex-ante benchmarks” for the corresponding sector or subsector. The Member States are obliged to report such energy price subsidies to the Commission prior to granting and to await the Commission’s decision.

2.2.1.2.1.2 Reductions of or exemptions from environmental taxes

If financial compensation measures will take the form of reductions of or exemptions from environmental taxes, it must be assessed whether and, if necessary, according to which prerequisites such tax reductions or exemptions can be deemed compatible with the internal market; the Commission guidelines must take priority in the course of this assessment.

The guidelines expressly refer to the category “Aid in the form of reductions of or exemptions from environmental taxes”. The guidelines distinguish here between reductions/exemptions that relate to harmonised taxes on the one hand and reductions/exemptions that relate to non-harmonised (i.e. purely national) taxes on the other.

Reductions of or exemptions from non-harmonised environmental taxes

73 See Vademecum Community Rules on State Aid, 5., page 13; in the event of non-compliance the aid is classified as unlawful with the consequence that the Commission instructs the recipient to return the aid.

74 The (new) General Block Exemption Regulation by the Commission (OJ EU, L 214/3 dated 9 August 2008), which generally exempts the aid categories covered by it from the reporting obligation, does also apply to environmental aid, but only to those types of environmental aid that are expressly listed there; this does not apply to aid in conjunction with tradable permit schemes, which is why there is still a reporting obligation for this aid category.

75 See point 57 and point 151 et seq. of the guidelines. Point 70 (14) of the guidelines defines environmental tax for the purpose of the guidelines as follows: “a tax whose specific tax base has a clear negative effect on the environment or which seeks to tax certain activities, goods or services so that the environmental costs may be included in their price and/or so that producers and consumers are oriented towards activities which better respect the environment”.

76 See point 152 – 153 of the guidelines (“harmonised taxes”) as well as point 154 et seq. of the guidelines.
In the case of non-harmonised (purely national) taxes, precisely these taxes must lead to an increase of production costs. However this case does not apply here because the aim of the financial compensation measures is to compensate for “costs relating to greenhouse gas emissions passed on in electricity prices”. For this reason, reductions of or exemptions from non-harmonised (purely national) environmental taxes do not qualify as financial compensation measures in the context of Article 10a (6).

**Reductions of or exemptions from harmonised environmental taxes**

By contrast, harmonised environmental taxes are not subject to the condition that precisely the taxes must lead to an increase of production costs. Harmonised environmental taxes include in particular “taxes regulated by Directive 2003/96/EC” (hereinafter referred to as the “Energy taxation directive”). According to the guidelines, reductions of or exemptions from energy tax as defined by the Energy taxation directive are permissible under Article 107 (3) lit. c) TFEU provided that they fulfil three conditions cumulatively:

1. The reduction of or exemption from energy tax is compatible with the relevant applicable Community legislation – in this case the Energy taxation directive.
2. The reduction of or exemption from energy tax complies with the limits and conditions set out in the Energy taxation directive, in particular the minimum levels of taxation set out therein. And:
3. The reduction of or exemption from energy tax is valid for no longer than 10 years.

The Energy taxation directive allows for tax reductions on the consumption of electricity used by energy-intensive businesses – in this case installations from the energy-intensive sectors or subsectors, but such installations must pay at least the minimum levels of taxation on

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77 Point. 57 of the guidelines, according to which the necessity of the aid depends on “the extent to which the national tax impacts on production costs”; see also point 158 of the guidelines (“the environmental tax without reduction must lead to a substantial increase in production costs”).

78 This can be seen from the fact that the condition stating that the increase of production costs has to stem from the environmental taxes is expressly related only to the non-harmonised (purely national) environmental taxes. See also the Vademecum Community Rules on State Aid, page 27, in this regard.


80 Point 152 of the guidelines.

81 See point 152 in conjunction with point 153 of the guidelines.

82 See Article 17 (1) of the Energy taxation directive.
electricity pursuant to the Energy taxation directive. However, the energy tax reductions cannot compensate for more than the indirect costs incurred through higher electricity prices; the indirect costs to be calculated according to the “ex-ante benchmarks” of the indirect emissions of CO$_2$ per unit of production thus always constitute the upper limit of permissible energy tax reductions, even if the minimum levels of taxation under the Energy taxation directive have to be increased in order to accommodate this. Finally, the reduction of energy tax cannot apply for longer than 10 years.

**Interim finding**

Financial compensation measures in the form of reductions of the taxes levied on the consumption of electricity can therefore be deemed compatible with the internal market if they do not exceed the (net) extra costs incurred due to higher electricity prices, which have to be calculated based on the “ex-ante benchmarks” pursuant to Article 10a (6) subparagraph 2, and if they do not apply for longer than 10 years. Provided that these prerequisites are met, it is not necessary to report such energy tax reductions to the Commission in advance. As a result, the procedural prerequisites are different from those for energy price subsidies.

**2.2.1.2.2 Ex-ante benchmarks**

As explained above, financial compensation measures – regardless of whether these are energy price subsidies or energy tax reductions – can only compensate for the indirect (net) extra costs caused by higher electricity prices in order to be deemed compatible with the internal market pursuant to Article 107 (3) lit. c) TFEU in conjunction with the Guidelines on State aid for environmental protection. Article 10a (6) subparagraph 2 provides a mandatory rule for the calculation of these extra costs eligible for compensation (under aid rules): These costs must be calculated based on “ex-ante benchmarks of the indirect emissions of CO$_2$ per unit of production”. These “ex-ante benchmarks” must be prepared for every energy-intensive sector or subsector that the Commission includes in its list.

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83 Article 25 (1) of the General Block Exemption Regulation.

84 The “ex-ante benchmarks” must be based on the electricity consumption per unit of production in accordance with the most efficient available technologies and the CO$_2$ emissions of the relevant European electricity generation mix for the respective sector or subsector, Article 10a (6) subparagraph 2, sentence 2 in Directive 2009/29/EG.

85 Article 10a (6) subparagraph 2 in Directive 2009/29/EG does not state who has to establish these “ex-ante benchmarks” but it corresponds to the purpose of Article 10a that this task should fall to the Commission because the “ex-ante benchmarks” must apply uniformly and equally to all installations in the sectors or subsectors included in the Commission’s list. If, however, it is assumed that the sectors or subsectors as defined by Article 10a (6) are identified by the Member States, the Member States would be obliged to establish the “ex-ante benchmarks”.
Hardship clause: Financial compensation measures in favour of sectors/subsectors by free allocation of allowances?

Both grammatically and systematically, Article 10a makes a clear distinction between financial compensation measures pursuant to paragraph 6 and the free allocation of allowances pursuant to paragraph 12. It can therefore be assumed that these two instruments must be kept clearly legally separate even if their economic effects on individual sectors or subsectors are similar in individual cases (see above, before 2.1). Thus free allocation of allowances cannot constitute a financial compensation measure as defined by Article 10a (6) and therefore does not qualify as an instrument for a “hardship clause” in the context of this provision.

2.2.2 WTO Agreement on Subsidies and Countervailing Measures (SCM Agreement)

2.2.2.1 Financial compensation measures as specific subsidies

It must also be assessed whether – and, if necessary, according to which prerequisites – financial compensation measures by the Member States as defined by Article 10a (6) are compatible with the SCM Agreement.

Definition of a subsidy (Article 1 of the SCM Agreement)

Financial compensation measures are subsidies as defined by Article 1.1 of the SCM Agreement because they constitute a financial contribution that gives rise to an economic advantage for the recipients of this contribution that they would not have obtained on the market or in any case not under these conditions. This is obvious for financial compensation measures in the form of energy price subsidies. Yet it also applies equally to financial compensation measures in the form of reductions of the energy taxes incurred on the consumption of electricity because the EU Member States forego the (tax) revenue to which they are actually entitled on the grounds of these measures. This foregoing of tax revenue gives rise to an economic advantage for the installations from the energy-intensive sectors or
subsectors selected by the Commission (or alternatively the Member States), as they are exempted from the (net) extra costs as a result that would otherwise (without the tax reduction) have been incurred due to higher electricity prices; this advantage is not in line with the market.

**Specificity of the subsidy (Article 2 of the SCM Agreement)**

Financial compensation measures would also have to be specific subsidies as defined by Article 2 of the SCM Agreement. The Member States can only grant financial compensation – whether in the form of energy price subsidies or energy tax reductions – to the energy-intensive sectors or subsectors identified by the Commission (or alternatively by the Member States themselves); in this regard the access to such subsidies is restricted to certain industries, which indicates a specificity of the financial compensation measures.

However, the specificity of financial compensation measures pursuant to Article 2 of the SCM Agreement does not exist if these subsidies are granted in accordance with the requirements pursuant to Article 2.1 b) of the SCM Agreement. Article 2.1 b) of the SCM Agreement requires among other things that the eligibility for the receipt of the subsidies in question “is automatic” if the conditions authoritative for granting are met. This means that the authorities responsible for granting the subsidies in question cannot have discretionary power concerning the legal consequences.

The question is whether Article 10a (6) or perhaps transposition into national law by the EU Member States are authoritative for the assessment of the specificity of financial compensation measures. Because any relevant national acts of transposition must be based on the secondary legislation authorisation of Article 10a (6), this standard must be considered first. It should be noted in advance that (secondary legislation) measures of the EU can easily be examined for their compatibility with WTO law because the EU is an independent WTO member.

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86 See 2.1.2.1.2 above for the specificity of subsidies pursuant to Article 2.1 of the SCM Agreement.

87 See 2.1.2.1.2 above for these requirements.

88 The original English wording is “the eligibility is automatic”.

89 Herrmann, § 14, point 692; Pitschas, page 462, point 80; likewise it appears in Evtimov, page 462, point 31.

90 A variety of measures by the EU have already been the issue of decisions by the WTO bodies in a large number of dispute settlement proceedings by the WTO; see the overview of the WTO dispute settlement proceedings initiated against the EU by other WTO members on the following website by GD Handel: [http://trade.ec.europa.eu/wtodispute/search.cfm?code=2](http://trade.ec.europa.eu/wtodispute/search.cfm?code=2)
Article 10a (6) is the authoritative secondary legislation standard for the granting of financial compensation by the Member States, regardless of whether these are energy price subsidies or energy tax reductions. This secondary legislation standard is therefore essential for the legal assessment as part of Article 2.1 b) of the SCM Agreement. It grants the EU Member States discretionary power with regard to whether they grant such financial compensation to the installations or operations in the energy-intensive sectors or subsectors concerned. In other words, according to Article 10a (6), the fact that an installation belongs to an energy-intensive sector or subsector selected by the Commission (or alternatively by the Member States) and thus meets the conditions for the receipt of financial compensation does not automatically mean that this installation is eligible for these subsidies. Yet this would be required under Article 2.1 b) of the SCM Agreement in order to rule out specificity of these subsidies.

The question is whether this finding changes when any national acts of transposition by the EU Member States pursuant to Article 10a (6) are included in the analysis. If such acts of transposition grant discretionary power to the national authorities responsible in the granting of financial compensation (i.e. energy price subsidies or energy tax reductions), there is no change to the finding described above; the specificity of these subsidies as defined by Article 2 of the SCM Agreement must also be deemed to exist in this case.

A different outcome could only really be achieved if national acts of transposition did not grant any discretionary power to the national authorities responsible, but instead made the installations or operations in the selected sectors or subsectors eligible for the receipt of the subsidies in question. If the act of national transposition were to be essential for the legal assessment pursuant to Article 2 of the SCM Agreement in this constellation, eligibility for the subsidy would automatically exist with the result that there would be no specificity – provided that the other requirements of Article 2.1 b) of the SCM Agreement were also met (legal and verifiable determination of the criteria that are authoritative for eligibility for subsidies; these criteria must be objective and strictly adhered to).91

However, the fact that these national acts of transposition have their basis in this provision indicates that these acts are not used in the latter constellation (no discretionary power for the national authority granting the subsidy) for the purposes of the assessment in accordance with Article 2.1 b) of the SCM Agreement. However, Article 10a (6) does not grant any automatic entitlement to the receipt of financial compensation. Furthermore, a comparison with the free allocation of allowances also indicates that national acts of transposition would not be used: The identification of a sector or subsector by the

91 See 2.1.2.3 above on the requirements of Article 2.1 b) of the SCM Agreement.
Commission as energy-intensive automatically leads to an entitlement to free allocation of 100% of the quantity of allowances set out in accordance with the “ex-ante benchmarks”. The free allocation of allowances is therefore not a specific subsidy as defined by the SCM Agreement. By contrast, identification by the Commission as an energy-intensive sector or subsector does not automatically entitle the installations or operations in the sector or subsector concerned to receive financial compensation; the granting of these subsidies is in fact subject to the discretion of the Member States.

In conclusion, therefore, it must be assumed that the national authorities of the EU Member States granting the subsidy have “discretionary power concerning the legal consequences”. Because such discretion is not compatible with Article 2.1 b) of the SCM Agreement, the financial compensation measures are specific subsidies as defined by the SCM Agreement.

2.2.2.2 “Actionability” of financial compensation measures

Because financial compensation measures pursuant to Article 10a (6) are specific subsidies as defined by the SCM Agreement, it must further be assessed whether these specific subsidies are prohibited under Article 3 of the SCM Agreement or – if this is not the case – are actionable under Articles 5 and 6 of the SCM Agreement.

Prohibited subsidies (Article 3 of the SCM Agreement)

Financial compensation measures do not fall into the category of prohibited subsidies pursuant to Article 3.1 of the SCM Agreement because their granting is not contingent upon export performance or upon the use of domestic (pre-) products over imported goods.

Actionable subsidies (Articles 5 and 6 of the SCM Agreement)

Because the category of “non-actionable” subsidies is no longer operable, the only remaining category for financial compensation measures is the category of “actionable

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92 See 2.1.2.3 above.

93 The category of non-actionable subsidies pursuant to Articles 8 and 9 of the SCM Agreement was only applicable provisionally according to Article 31 of the SCM Agreement; the Committee could have extended the application period at the end of a five-year transition period from the date of entry into force of the WTO Agreement but this did not happen; see also WTO, World Trade Report 2006, page 201.
subsidies” within the meaning of Article 5 of the SCM Agreement. However, according to Article 5 of the SCM Agreement, subsidies are only actionable if they cause adverse effects to the interests of other WTO members.\textsuperscript{94} Article 5 of the SCM Agreement provides three cases in which such an adverse effect can be assumed. Of these, it is primarily Article 5 c) of the SCM Agreement that is relevant in the case at hand.\textsuperscript{95} That case states that subsidies of one WTO member cause adverse effects to the interests of another WTO member if they cause “serious prejudice” to the interests of these other members.\textsuperscript{96}

What is meant by serious prejudice is explained in Article 6.3 of the SCM Agreement. This provision lists four constellations in which serious prejudice can be assumed.\textsuperscript{97} Three of the four constellations require an examination of how the subsidized product affects (in terms of price) a like product of another WTO member; therefore a product-related (price) analysis is needed in the individual case.\textsuperscript{98} The fourth constellation hinges on whether there is an increase in the world market share in a subsidized primary product or commodity and thus also requires a case-by-case analysis using a comparison with the prior-year period over three years.\textsuperscript{99} For this reason it is not possible to assess in a general abstract manner whether financial compensation measures pursuant to Article 10a (6) seriously prejudice the interests of other WTO members.\textsuperscript{100}

Irrespective of this, it is questionable whether financial compensation measures could seriously prejudice the interests of other WTO members in individual cases. While they do give rise to an economic advantage for the installations concerned or their operators, this advantage relates to compensation for extra (energy) costs incurred because of regulatory intervention by the EU emissions trading system. The situation of the installations

\textsuperscript{94} Article 5.1 of the SCM Agreement refers to “adverse effects to the interests of other Members”.

\textsuperscript{95} The case under Article 5 (b) of the SCM Agreement requires nullification or impairment of benefits accruing to another WTO member under GATT 1994, in particular the benefits of customs concessions; the scope of this case is very narrow. The case under Article 5 (a) of the SCM Agreement presupposes that a domestic industry of another WTO member is injured; the following comments in the text ultimately apply with respect to this case.

\textsuperscript{96} The original wording is “serious prejudice to the interests of another Member”.


\textsuperscript{98} See Herrmann, § 14, point 696; Piérola, page 512, point 33; see also van den Bossche, section 6.3.4.2, page 583.

\textsuperscript{99} See Herrmann, § 14, point 696; Piérola, page 512, point 33; see also van den Bossche, section 6.3.4.2, page 583.

\textsuperscript{100} This statement applies equally to the case of injury to a domestic industry within the meaning of Article 5 (a) of the SCM Agreement because in order for such injury to be determined, substantiation must be provided in the individual case that the subsidized product caused the injury; compare van den Bossche, section 6.3.4.1, page 578; WTO, World Trade Report 2006, page 202.
concerned in competition with installations from third countries that do not have any regulatory constraints comparable to the EU emissions trading system does not improve on account of this compensation for extra (energy) costs, as the compensation only serves to maintain the status quo ante. In fact the financial compensation measures aim to ensure that the competitive situation does not deteriorate in comparison with the aforementioned installations from third countries.

In conclusion, it is found that financial compensation measures are actionable by other WTO members in principle pursuant to Article 5 of the SCM Agreement; but such action requires substantiation in the individual case that the financial compensation measures cause adverse effects to the interests of other WTO members. It is doubtful, however, whether such substantiation can actually be provided.

2.2.3 Interim finding

Financial compensation measures such as energy price subsidies and reductions of the taxes incurred on the consumption of electricity are generally prohibited as aid under the Community state aid rules. However, they can be deemed compatible with the internal market if they only compensate for the (net) extra costs incurred by the installations in the energy-intensive sectors or subsectors selected by the Commission due to higher electricity prices. These (net) extra costs must be calculated according to the “ex-ante benchmarks” as defined by Article 10a (6). The EU Member States can grant financial compensation in the form of energy price subsidies only after they are approved by the Commission; by contrast, financial compensation in the form of energy tax reductions do not require the prior approval of the Commission, provided that the aforementioned conditions are met.

Financial compensation measures as defined above are specific subsidies pursuant to the SCM Agreement and are in principle actionable by other WTO members. However, such action requires substantiation in the individual case that the measure in question actually causes adverse effects to the interests of another WTO member. It is doubtful whether it would be possible to provide such substantiation in the case of compensation for the higher electricity prices caused by the emissions trading system.
3 Border adjustment measures

Border Adjustment Measures (BAM) are under discussion using various implementation options. One variant is to include importers in the emissions trading system, another is to impose tariffs on imports at the border. Because the specific structure of a BAM is essential for its legality, specific implementation options will be assessed below. First of all the inclusion of importers in the emissions trading system will be examined, followed by BAM in the form of tariffs imposed at the border.

Burden of proof rules in WTO arbitration proceedings

The GATT distinguishes between the rights and obligations of the Contracting States. This has important consequences for the burden of proof in arbitration proceedings. Generally the claimant must demonstrate and prove that the defendant has breached its obligations from the GATT. For BAM this means that the burdened party – for example China as a large importer – must demonstrate at least prima facie a breach of the obligations from Article I or III for example. It is then up to the defendant – for example the EU – either to refute the demonstrated breach prima facie or to prove that it is justifiable pursuant to Article XX.

3.1 Inclusion of importers in the emissions trading system

The inclusion of importers in the European emissions trading system is an implementation form for BAM that is subject to particularly intensive debate. It is expressly provided for in Directive 2009/29/EC. According to Article 10b (1) b) in Directive 2009/29/EC, the Commission should make proposals by 30 June 2010 in order to include “importers of products which are produced by the sectors or subsectors determined in accordance with Article 10a” in the Community scheme. The Directive does not contain any further details regarding the structure of this measure. The climate protection and energy laws discussed by US Congress set out in detail a method for including importers in an emissions trading system (see inset). In the following, key aspects and criteria for the design of this measure will be presented in a first step, followed by a discussion of the compatibility of inclusion of importers in an emissions trading system with the GATT.
US proposals on inclusion of importers in an emissions trading system

In the United States, the debate on measures to protect competition in the area of climate protection goes back to a proposal by Michael G. Morris from the energy supply company American Electric Power (AEP) and by Edwin D. Hill from the trade union International Brotherhood of Electrical Workers (IBEW). This proposal was outlined in February 2007 as part of a commentary in a specialist publication, and triggered a far-reaching debate that ultimately led to the inclusion of the necessary provisions in the key legislative bills on climate protection. The most recent and most important step in this regard is the American Clean Energy and Security Act of 2009 (ACES), which was passed in the US House of Representatives on 26 June 2009.

The ACES bill, which was introduced by Representatives Henry A. Waxman and Edward J. Markey, contains rules on protection against competitive disadvantages for domestic companies engendered by climate policy regulations in the law. According to these rules, the President of the United States is instructed to introduce a BAM from 2020 for imports of energy-intensive goods if no “binding agreement with all major greenhouse gas-emitting nations” has been reached by then which takes into account an “equitable” contribution to the reduction by the nations in question and resulting distortions of competition. The border adjustment measure relates to the obligation to purchase “International Reserve Allowances” for imported goods; this measure would replace a pre-existing system of rebates for domestic companies. The only situation in which such international reserve allowances will not be introduced is if the President determines that these are not in the national interest and Congress passes a resolution to this end.

The bill can only enter into force if the Senate also passes the relevant legislation. Differences in the versions by the Senate and the House of Representatives must then be reconciled in a Conference Committee before the law can be presented to the President for signing. The status of the discussion as of December 2009 is that corresponding BAM will be maintained or possibly even strengthened in the Senate.

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101 Morris and Hill.
3.1.1 Inclusion of importers in the emissions trading system: Implementation options and criteria

A measure to include importers in an emissions trading system involves including importers of such products that would oblige them to take part in the European emissions trading system if the products were produced in the EU. This means that the importers would be obliged for imported products to surrender the quantity of allowances upon import that corresponds to the quantity of emissions that would be produced in the manufacture of a like product manufactured in the Community. According to Directive 2009/29 EC, only those importers of products which are produced by the sectors or subsectors determined in accordance with Article 10a should be included. Under this provision, these sectors or subsectors are the sectors deemed to be exposed to significant carbon leakage risks (Article 10a (15) et seq.). The aim is to compensate for the competitive disadvantages resulting for a producer domiciled in the Community from the emissions trading system.

In every implementation option, the inclusion of importers assumes that the burdened importer has to pay the same price for the purchased allowance as the domestic producer. For the purchase of allowances, this means that the importer is participating in the market for allowances under the same conditions as its European competitor. The principle of including importers at market prices in the EU appears unambiguous, although important procedural details – such as the timing of the purchase of the allowance or the verification of the emission quantity – would have to be regulated, as these decide the legality of the measure (see 3.1.2 below).

One of the key questions that must be answered in the inclusion of importers is how many allowances the importer has to surrender on import. In order to achieve equal treatment as required by the GATT, it is essential that domestic products and like imports are burdened equally and that the same number of allowances are surrendered. The fundamental problem in this respect is that European producers have to substantiate their emissions every year for their production installations (and surrender the corresponding amount of allowances), but not for the products. In fact the production quantities are not even included in the information that the producers have to provide regularly. The information available to the competent authorities concerning the products produced and the technologies used for production is therefore limited. The same issue applies to the equal treatment of importers with regard to the allocation of allowances. Inclusion of the importers would have to ensure that the importers and the domestic producers are allocated allowances under the same conditions. Based on the current practice of free allocation, this poses serious challenges (see 3.1.2 below).

Various models are under discussion for calculating the quantity of allowances that importers have to surrender. The most precise method, and therefore the one least open to
legal challenges, would be to set out the emissions for each individual import (e.g. a cargo load of sheet steel) that actually result from the production of the products imported. This would oblige importers to document the emission quantities generated in the production of each individual product. This documentation would have to be prepared for each individual company or even for each installation. It appears obvious that the administrative workload necessary for this measure would be hard to manage, especially if the information also needed to be verified. In light of this practical difficulty, the following **blanket options** are proposed:

- **Most efficient or best available technology:** Based on this proposal, an importer would have to purchase the number of allowances that a domestic producer would need using the most efficient technology. To identify this “most efficient technology”, use could be made either of the emission benchmarks that are to be applied across the EU from 2013 for the allocation of allowances or the “best available technology” pursuant to the IPPC Directive for the respective sector / production process. Under this proposal, there would be only one, global criterion used for calculation. Although this proposal would reduce the administrative workload considerably, it would bring with it a range of considerable disadvantages:

  o For domestic producers that do not use the most efficient technology, this provision would not (completely) compensate for competitive disadvantages. The assumption would be made that importers – regardless of their actual performance – rank among the cleanest and most efficient producers.

  o As the Seville process shows, it is not easy to define the “best available technology”; often, the result is more of a compromise than the actual best technology on the market. The best available technology approach also does not provide a result in the form of “tonnes of CO₂ per production unit.” For example, it does not take into account the fuels used, as the IPPC Directive only looks at energy efficiency but not at minimising CO₂ emissions.

  o From an environmental protection perspective, the most efficient technology approach is unsatisfactory, as the BAM would then be at a relatively low level and would only offer comparatively small incentives abroad. Assuming that

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102 Jordan-Korte; Mildner, page 5
103 See for example Ismer; Neuhoff, 2004, see also Hilbert, Berg, page 9
104 Hilbert, Berg, page 9
the actual emission intensity abroad is considerably higher than the most efficient technology on the European market, this approach provides a heavily distorted price signal for domestic and foreign producers.

- **Production method predominant in the EU:** According to another proposal, the quantity of allowances to be purchased would be calculated on the basis of the production method predominant in the EU, i.e., it is assumed that the importer has generated the same amount of emissions during production as would have resulted from the production method predominant in the EU.\(^{105}\) The advantage of this proposal over the most efficient or best available technology approach is that potential competitive disadvantages for domestic producers would be better compensated for. However, it has the considerable disadvantage that a “predominant technology” is even more difficult to define than the “best available technology”. Furthermore, determining the “predominant technology” is not coupled with any other use, unlike the “best available technology” or allocation benchmarks.\(^{106}\) In fact this determination would only be relevant for inclusion of importers in the emissions trading system. Major pressure could be expected from lobbyists to determine a “predominant technology” that is as lacking in ambition as possible, which could likely result in accusations of protectionism from trading partners.

- **Average emissions per importing country:** Based on this proposal – as it is set out in the US bills for example – certain average emissions for specific product groups would be estimated for importing countries, i.e. average emissions would be set out per GDP or per capita for importing countries. This data would be used to establish lists of the countries for which importers would have to substantiate allowances, based on the country emission values. The problem with this system is that importers do not have any incentive to reduce their production emissions to below the country average. There is also the danger that countries listed in country lists will endeavour to process their imports via a third country that is not recorded in any country list in order to avoid having to substantiate emissions. This would not benefit the competitiveness of the domestic economy or the environment. It may even increase transport emissions, as products would be transported via the third country.

- **Average emissions per importing country with the option for importers to substantiate their own emissions:** This proposal is based on the prior proposal but gives importers the option to substantiate their actual emissions in order to surrender

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105 Pauwelyn, 2007

106 These difficulties are also not resolved by benchmarking based on 10% of the most efficient installations. While benchmarking can be used to calculate average emission standards, identifying the “predominant technology” relates to a production method as employed by the majority of producers in a certain sector.
fewer allowances. This system creates an incentive to invest in more efficient production processes. However, the disadvantage is that it involves more administrative work than a system based solely on country averages.

- **Inclusion of importers from Contracting States of international climate protection treaties:** Another proposal is that importers from Signatories to the Kyoto Protocol or a successor agreement would not be included in the emissions trading system because these countries have already committed to “comparable” climate protection efforts and therefore companies producing in these countries are burdened with comparable costs. Accordingly, there would be no (significant) differences in the competitive conditions and thus no leakage risk. However, it must be taken into account here that Signatories to the Kyoto Protocol do not have the same commitments. In view of the international negotiations and the principle of common but differentiated responsibilities, it can be assumed with certainty that a new climate protection treaty would also provide for differing commitments of the Signatories based on their abilities and responsibilities. Accordingly, the climate policy frameworks and thus the competitive situations will continue to differ.

In addition to the issue of the countries of origin, a measure to include importers in the emissions trading system must regulate which **products, sectors or companies** have to surrender allowances on import:

- **No products from downstream processing stages:** By linking the inclusion of importers to the European emissions trading system and the equal treatment obligations in the GATT, it automatically follows that only products can be included from such sectors that are themselves covered by the European emissions trading system; see also Article 10a of Directive 2009/29/EC. The basic rule then applies that only raw materials can be included when including importers; products from downstream processing stages cannot be included. This is because items such as iron and steel fall within the scope of emissions trading under the European emissions trading system, while processed products such as semi-finished products and extrusions etc. do not.\(^7\) This restriction is problematic in that the price signal provided by emissions trading for European producers is effective across all processing stages: emissions trading targets energy-intensive (pre-) products such as steel, cement or paper, making production more expensive. In order to achieve its full effect, this price signal would have to be passed on through all downstream processing stages. However, because it is not possible to transfer this

\(^7\) It should be noted in this regard that the processing of metals as well as combustion units of more than 20 MW are also included according to Annex I of the Directive.
mechanism to all imported products, there is an additional incentive to move parts of the value added abroad.

- **Taking the electricity price into consideration:** This begs the question whether the inclusion of importers can and should also take into account the effect of emissions trading on electricity prices. For certain products (aluminium) and production processes (electric-furnace steel), electrical energy constitutes a major input and thus cost factor. However, calculating emissions trading effects on electricity prices is already disputed within the EU and the subject of a wide variety of often conflicting expert appraisals and statements, which is why this aspect in practice can hardly be taken into account in a globally applicable system to include importers.

- **Carbon leakage risk:** Furthermore, only those products that can actually be affected by carbon leakage should be included. Based on this criterion, only energy-intensive products in international competition can be included.

Inclusion of aviation activities in the emissions trading system: Model for calculating prices and emission quantities to be substantiated?

Pursuant to Directive 2008/101/EC, “emissions from all flights arriving at and departing from Community aerodromes should be included from 2012” [emphasis added]. From 2012 and also in 2013, 15% of allowances will be auctioned under the Directive. Aircraft operators as defined by the Directive are obliged to monitor their tonne-kilometres and CO₂ emissions from 2010 already and to submit an annual report thereon. According to Annex I of the Directive, the actual emissions are calculated for each individual flight using the formula: fuel consumption x emission factor. It could therefore be considered to what extent there is a parallel between the flights entering the EU and imported goods.

Unlike the other sectors covered by the emissions trading system, the specific emissions in aviation activities can be calculated reliably and transparently based on distance, aircraft type and fuel consumption. This is why the inclusion of aviation activities in the emissions trading system cannot be transferred to the other sectors in the emissions trading system.

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109 See Hilbert, Berg, page 6
Therefore Directive 2008/101/EC cannot be used as a model for inclusion of importers.

3.1.2 Article III (4) GATT: Non-discrimination principle in relation to laws and regulations

**Article III (4) GATT**

The products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin in respect of all laws, regulations and requirements affecting their internal sale, offering for sale, purchase, transportation, distribution or use.

The obligation of an importer to surrender allowances is covered by Article III (4) GATT because this is not a charge as defined by Article III (2) GATT but a regulatory requirement to substantiate emissions and to surrender allowances, i.e. “a requirement affecting their internal sale, offering for sale, purchase, transportation, distribution or use”.

Under Article III (4) GATT it must first be assessed whether the products concerned are like products. The extent to which unequal treatment exists based on origin must then be assessed.

3.1.2.1 Likeness

Determining whether or not a product is a like product is the subject of a long jurisprudential discussion. Case-law has developed a range of criteria for determining likeness:

1. Properties, nature and quality of the product

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110 Green, page 157; Potts, page 13 – 14. Japan – Alcoholic Beverages II, page 20; Canada – Periodicals, page 21; EC – Asbestos, para. 102, Panel, Canada – Autos (WT/DS139, 142/R), para. 10.80. For the distinction between Art. III (2) and (4) it is necessary to observe the precise structure of a border tax adjustment, see also section 3.2 below (somewhat broad in this respect: Hilbert, Berg, page 613).
2. End use

3. Consumer taste and habits in relation to the product and

4. Customs classification of the product.

At the same time the rulings emphasise that these criteria do not constitute an exhaustive list, but serve merely as an aid in determining likeness in individual cases. According to case-law, the competitive relationship between the respective product groups is decisive. In EC - Asbestos the Appellate Body ruled that the determination of likeness is “a determination about the nature and extent of a competitive relationship between and among products”. This corresponds to the objective of Article III and to the GATT as a whole, which is to provide equality of competitive conditions for imported and domestic products and thus to achieve the greatest possible degree of trade facilitation.

In light of these facts, prevailing opinion is that it is not the process and production methods (PPMs) but the physical properties of the product that are authoritative for determining the likeness of products. This is why the GATT panel found that tuna fished in a “dolphin-friendly manner” is the same as tuna fished in a “dolphin-unfriendly manner”. However, this case is an old case that was negotiated prior to the founding of the WTO.

Different production methods are therefore irrelevant for the likeness of a product, i.e. like domestic and imported products remain like products even if a different production method is used. It is irrelevant for the likeness of a product whether the electricity used for production was generated by wind energy or by coal. Therefore, inclusion of importers in an emissions trading system is compatible with Article III (4), not least because the products included would not be like because of different production methods.

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113 AB, Japan – Alcoholic Beverages II, page 16; Canada – Periodicals (WT/DS31/AB/R), page 18; Korea – Alcoholic Beverages (WT/DS75, 84/AB/R), para. 120; Chile – Alcoholic Beverages (WT/DS87, 110/AB/R), para. 52. See also Mavroidis, page 127 – 128; Zarrilli, page 359.

114 See for example Howse, Regan, page 249 et seq., Potts, or Cossy, 2006.

3.1.2.2 Unequal treatment

If the product groups covered by the inclusion of importers in an emissions trading system are like product groups, they must be treated equally, i.e. imported products must be accorded “treatment no less favourable than that accorded to like products of national origin”. Unequal treatment exists if an imported product is treated less favourably than a like domestic product. Article III (4) GATT prohibits any less favourable treatment regardless of how minor this is.116

In view of the relevant case-law, inclusion of importers in an emissions trading system must ensure that the competitive conditions for importers and domestic producers are the same in each individual case. According to the ruling in US – Gasoline, equal treatment of importers and domestic producers on average is not sufficient to meet the requirements of Article III (4):

A previous panel had found that the "no less favourable" treatment requirement of Article III:4 has to be understood as applicable to each individual case of imported products. The Panel rejected any notion of balancing more favourable treatment of some imported products against less favourable treatment of other imported products. If this notion were accepted, it would entitle a contracting party to derogate from the no less favourable treatment obligation in one case, or indeed in respect of one contracting party, on the ground that it accords more favourable treatment in some other case, or to another contracting party. Such an interpretation would lead to great uncertainty about the conditions of competition between imported and domestic products and thus defeat the purposes of Article III.30 The Panel concurred with this reasoning that under Article III:4 less favourable treatment of particular imported products in some instances could not be balanced by more favourable treatment of other imported products in other instances.117

Accordingly the inclusion of importers must be structured such that it does not change the competitive conditions to the disadvantage of any individual importer – not even in detail. Against this background, it is a challenge to structure the calculation of the emission quantities to be surrendered in such a way that it can ensure equal treatment between

116 AB, Korea – Beef, para. 135; Dominican Republic – Cigarettes, WT/DS302/AB/R, AB Report, para. 93.

117 US Gasoline, para. 6.14., see also Dominican Republic – Cigarettes, WT/DS302/AB/R, AB Report, para. 96
domestic producers and importers in each individual case. This also applies by analogy to the allocation of allowances. It is therefore inevitable that importers be granted the right – by analogy to the European emissions trading system – to be allocated and to surrender the respective allowances individually. Even then it is questionable how an analogy can be created in practice between the installation-based approach of the EU emissions trading system and a product-based approach – as is required for BAM. In any case, such individualisation results in a great deal of administrative work in the system, especially if the information to be reported by importers have to be verified independently. As is the case with the European emissions trading system, it would make sense to have installations (and their products) covered by a measure to include importers in an emissions trading system audited and verified by an independent expert. This control requirement would almost be impossible to implement in practice. However, it is also not a prerequisite for legality, as Article III (4) GATT does not prohibit less favourable treatment of domestic producers.

Because individual emission substantiation is almost impossible to provide, blanket calculation methods provide an alternative solution. However, because Article III (4) GATT requires equal treatment in each individual case, there are doubts as to whether blanket approaches can be designed in such a manner as to ensure equal treatment in each individual case. To the extent that the inclusion of importers works on the basis of country lists that use emission averages of the importing country as a calculation base, it appears impossible to ensure equal treatment in each individual case. This is because it is almost impossible to capture the climate protection policy of an importing country in a country list precisely and reliably enough to rule out the possibility of an importer pleading the special aspects of its country of origin.

This problem could be solved – at least at first glance – by an inclusion of importers that is based on the most efficient technology, best available technology or the predominant production technology in the country of destination. Such a system would result in the most efficient installations in the country of destination being used as a calculation base for estimating the emissions in the country of origin. Provided that it can be assumed that the installations used domestically are generally more efficient than abroad, their actual emissions would be systematically underestimated in this way. This effectively constitutes less favourable treatment of the domestic producers, which is possible under Article III (4). However, these approaches do not resolve the following concerns:

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118 It should be noted in this respect that while the issue of allocating and surrendering allowances is of central importance for the structuring of the European emissions trading system, it is irrelevant for the assessment of Article III. This is because importers and domestic producers must be treated equally in terms of the allocation and surrender of allowances. For this reason, the eligibility for allocation and the responsibility to surrender are assessed jointly below in accordance with WTO law.

119 In this respect the comments by Hilbert, Berg, page 14 – 16, are not critical enough.
• **An importer is more efficient than the reference yardstick:** Unequal treatment would exist if an importer can prove that the actual emissions from the product it imported were lower than the emissions that would have been generated using the production method predominant in the EU or even the best available technology.

• **No benchmarks for importers and case-by-case substantiation for domestic manufacturers:** The ruling in the US Gasoline case is also particularly relevant here. The subject of that case was a provision of the US Clean Air Act which provided that from a specific cut-off date only gasoline that did not exceed certain emission thresholds could be sold. This provision applied to domestic refineries and to importers. While the Clean Air Act set out individual thresholds for domestic producers, however, average standard thresholds were applied to importers which were established by the US Environmental Protection Agency. The GATT panel held this provision to be incompatible with Article III (4) GATT because it favoured domestic products over like imports:

> This resulted in less favourable treatment to the imported product, as illustrated by the case of a batch of imported gasoline which was chemically [...]. The Panel found therefore that since, under the baseline establishment methods, imported gasoline was effectively prevented from benefiting from as favourable sales conditions as were afforded domestic gasoline by an individual baseline tied to the producer of a product, imported gasoline was treated less favourably than domestic gasoline.  

In light of this ruling, a structure for inclusion of importers whereby domestic producers have to substantiate their emissions individually for each installation but importers have to substantiate their emissions based on average standard values would be incompatible with Article III (4). As a consequence this means that importers would have to be granted the option of exemptions which – depending on their scope – can cancel out the administrative ease of a benchmark system based on the best available technology or predominant production technology.

• **Best available technology or predominant production technology approaches deviate from Directive 2009/29/EC:** The best available technology or predominant production technology approaches deviate from the benchmark system of Directive 2009/29/EC. Pursuant to Article 10a in Directive 2009/29/EC, the European Commission establishes in comitology proceedings benchmarks that take the most
efficient 10% of European installations as a yardstick for allocation. The Directive
does not specify which production quantities are used when measuring allocation. By
contrast, the best available technology approach expressly includes economic
aspects; the “predominant production technology” obviously deviates from the system
of Directive 2009/29/EC. As a consequence, unequal treatment is deemed to exist if
the allowances of importers are calculated based on the best available technology or
predominant production technology but domestic producers have to substantiate their
emissions according to the Directive. Conversely this means that a solution based on
best available technology or predominant production technology that would apply
equally to importers and to domestic producers would modify the emissions trading
system of Directive 2009/29/EC considerably. It would not appear to make sense or
be politically realistic to make such a fundamental change to the Directive.

This poses the very important question of the extent to which unequal treatment results
from the free allocation of allowances. The problem is that Directive 2009/29/EC provides
for at least some allowances to be allocated free of charge initially until 2020 and potentially
until 2027. Unless this situation changes, it would have to be taken into account in dealing
with importers that their domestic competitors have been allocated some of their allowances
free of charge. Unless the importer were also allocated free allowances, it would be
disadvantaged relative to the domestic producer.

From the perspective of WTO law, it is also necessary that all privileges granted to domestic
producers be granted to importers of like products. This also extends to any hardship
clauses, for example as provided for in Sec. 6 (6) of the ZuG 2012 ["Zuteilungsgesetz":
German Allocation Law] for the second trading period. If such provisions are retained when
introducing the inclusion of importers – which may be necessary in order to make the
emissions trading system constitutional under national law or for reasons of political
enforceability – they must also be available to importers. It is not possible to predict the
practical consequences of such an extension of all exemptions; there is also a considerable
risk of abuse. In addition, the practicality of a system to include importers that is rendered
more complicated due to exemptions would be considerably restricted.

3.1.3 Most-favoured-nation principle (Article I GATT)

<table>
<thead>
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<th>Article I GATT</th>
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<td>1. With respect to customs duties and charges of any kind imposed on or in connection with importation or</td>
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exportation or imposed on the international transfer of payments for imports or exports, and with respect to the method of levying such duties and charges, and with respect to all rules and formalities in connection with importation and exportation, and with respect to all matters referred to in paragraphs 2 and 4 of Article III, any advantage, favour, privilege or immunity granted by any contracting party to any product originating in or destined for any other country shall be accorded immediately and unconditionally to the like product originating in or destined for the territories of all other contracting parties.

If a BAM differentiates between country of origin for like products, the most-favoured-nation principle (Article I GATT) must be examined. This is because the most-favoured-nation principle states that any advantages granted must be extended immediately and unconditionally to each like product “originating in or destined for the territories of all other contracting parties”. Because the most-favoured-nation principle pursuant to Article I basically prohibits differentiation of like products based on their country of origin, this provision is solely applicable to measures to include importers that are based on the circumstances in the country of origin. Specifically this means that the implementation options for inclusion of importers that differentiate based on country lists (see section 3.1.1) must stand up to the most-favoured-nation principle. By contrast, implementation options for inclusion of importers that are based on the circumstances in the importing country (see section 3.1.1) must stand up to the non-discrimination principle in Article III.

The wording of this provision and the relevant rulings make it clear that both de jure and de facto discrimination of imports is prohibited.121 The question of likeness basically follows the same requirements as Article III, as both provisions have the same normative purpose, which is to create equal competitive conditions between imports and domestic products.

In the case Canada-Automotives the AB found as follows:

“[W]e consider that the obligation to accord ‘unconditionally’ to third countries which are WTO Members an advantage which has been granted to any other country means that the extension of that advantage may not be made subject to conditions with respect to the situation or conduct of those countries. This means that an advantage granted to the product of any country must be accorded to the like product of all WTO Members without discrimination as to origin” (emphasis added).122

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121 Settled case-law; for example, Canada-Automotives, Appellate Body Report, WT/DS139/AB/R, para. 78. De facto discrimination exists if unequal treatment does not exist formally but is, based on the actual circumstances, the typical result of a provision. By contrast, de jure discrimination must be assumed if the wording of the relevant legal provision gives rise to unequal treatment.

122 Panel Report on Canada - Autos, paras. 10.23.
In light of this ruling it cannot be argued that differentiation based on country lists is not in fact based on the origin of a product but on the respective national climate protection policies. This line of argument fails to recognize that Article I GATT also prohibits de facto discrimination, with the result that the recipient countries in case of a system to include importers can object on the ground that the specific structure of the contentious system would typically discriminate against them. It also assumes that the national climate protection policies are comparable in that they could provide a basis for a system to include importers that differentiated based on country lists. It is doubtful, however, that national climate protection measures are comparable in this way. National climate protection measures differ quite considerably in terms of the intensity of intervention, their level of ambition and the related costs, the types of instruments used, the sectors covered and last but not least the effect on emissions. For example, one country might not take part in any emissions trading system but may have an ambitious policy of climate protection charges, while another might not have accepted targets to reduce emissions but may in fact reduce its emissions more than a country with mandatory emissions thresholds based on its energy policy. Therefore it is probable that a court of arbitration will reject any reference to differences in national climate protection measures, but will assume at least de facto discrimination.

This is why it makes sense to apply any system to include importers to all importing countries. In this case a breach of Article I GATT would appear to be precluded, as all importers are burdened equally. However this argument fails to recognize that applying the system to include importers to all importing countries without any differentiation would also include countries whose own climate protection policy already burdens the importer – which would result in a double burden. Conversely, this double burden would grant an advantage within the meaning of Article I GATT to importers whose countries of origin do not have any comparable climate policy burden. This would in turn result in a breach of Article I GATT. This is because Article I GATT requires the contracting parties to accord any advantage granted to all contracting parties equally.

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123 See 3.1.1 above, which presents a system to include importers with a differentiation by country. This involves preparing a country list for implementation that differentiates by emission averages or international climate protection commitments entered into. Importers from the listed countries must substantiate allowances or are exempted from this duty. See also the legislative bills in the US Congress (3.1 above).

124 Hilbert, Berg, page 22.

125 Dhar, Das, page 33
3.1.4 General exception according to Article XX GATT

**Article XX General exceptions**

Subject to the requirement 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, nothing in this Agreement shall be construed to prevent the adoption or enforcement by any contracting party of measures:

b.) necessary to protect human, animal or plant life or health

g.) relating to the conservation of exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.

If the inclusion of importers in the emissions trading system is not compatible with Articles I and III, this does not necessarily mean that the measure is not compatible with the GATT as a whole. Pursuant to Article XX, the general rule on exceptions, it is possible that a measure that is inherently unlawful may be justified. This presupposes that the prerequisites in a) to j) and in the introduction (chapeau) are met. For the inclusion of importers, only g) and b) come under consideration as possible grounds for justification.

3.1.4.1 Article XX g)

Pursuant to Article XX g), mandatory inclusion in the emissions trading system would be justified if this obligation constituted a measure “relating to the conservation of exhaustible natural resources” and if they “are made effective in conjunction with restrictions on domestic production or consumption”.

In view of the ruling of the WTO panel it appears certain that the climate and the atmosphere can be subsumed under the term exhaustible natural resource.\(^{126}\) Furthermore the inclusion of importers must serve to protect the climate (“relating to the conservation”). According to the ruling, this is the case if there is a “close and genuine relationship of ends and means”.\(^{127}\)

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In the case *US-Shrimp*, the panel set out as a further criterion that the measure cannot be “disproportionately wide in its scope and reach in relation to the policy objective of protection and conservation”.  

In view of this ruling, a system to include importers must be able to substantiate that it **primarily and directly serves to protect the climate** (“close and genuine relationship of ends and means”) and is not a measure that serves solely or primarily to protect European industries from competitors from outside of Europe. This would make it problematic if estimates were to show that a system to include importers would have no effect or only a very minor effect on reducing emissions, as in McKibbin’s study. Nevertheless it is relevant here that the EU would not have to present any quantified estimate or even empirically proven calculation of the effect of a system to include importers on greenhouse gas emissions. According to the ruling in the *Brazil-Tyres* case, broad and plausible estimates of the reduction potential are sufficient to meet the prerequisite of “relating to the conservation”. In view of the case-law, it would be problematic if government representatives were to emphasise in the political debate the effect on competition of a system to include importers.

Finally Article XX g) requires that the inclusion in the emissions trading system must be “made effective in conjunction with restrictions on domestic production or consumption”. Case-law has not construed this prerequisite as meaning that the restrictions on domestic and imported products must be identical, but requires general “even handedness”. Thus the inclusion of importers would fulfil this condition if domestic products were subject to the same restriction. Accordingly it would not be permissible to exclude domestic products from the auctioning of allowances, for example, while importers had to purchase their allowances in an auction (see 3.1.4.3 below).

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129 McKibbin, Wilcoxen, page 5

130 See also AB Report in Brazil-Tyres, WT/DS332/AB/R, paras. 146-149.

3.1.4.2 Article XX (b)

Pursuant to Article XX (b), the system to include importers would be justified if it is “necessary to protect human, animal or plant life or health”. Because Article XX (b) requires that the system to include importers must be “necessary” to protect life, it sets higher standards than (g), which only creates a relationship between the end and the instrument (“relating to”). Conversely, (b) sets lower standards because – unlike (g) – it does not require that the measure must be “made effective in conjunction with restrictions on domestic production or consumption”.

From case-law it appears clear that climate protection can be subsumed under the prerequisites “protect human, animal or plant life or health”.132 However, the separate prerequisite of ‘necessary-ness’ constitutes a potential obstacle for a system to include importers, depending on the system’s design. According to the case-law, “necessary” must be construed as meaning that conflicting interests must first be weighed up against each other and that no milder, less trade-restrictive alternative is available.

As far as counter-balancing of interests is concerned, the AB examined in settled case-law (1) the significance of the protected common interests or values, (2) the contribution of the contentious measure to preserving the protected common interests or values and (3) the trade-restrictive effect of the contentious measure.133 Applying this case-law to systems to include importers, there is no doubt surrounding the relative significance of the protected common interests or values – in this case the global climate. As far as the requirement “contribution to preserve the protected common interests or values” is concerned, the AB found in the Brazil Tyres case that

“[s]uch a contribution exists when there is a genuine relationship of ends and means between the objective pursued and the measure at issue. The selection of a methodology to assess a measure's contribution is a function of the nature of the risk, the objective pursued, and the level of protection sought. It ultimately also depends on the nature, quantity, and quality of evidence existing at the time the analysis is made.”134

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132 See also AB Report in Brazil-Tyres, para. 151 “measures to attenuate global warming” (as examples of measures whose impact may be felt only long-term) while examining Article XX b).

133 See Brazil Tyres, Korea-Beef, US-Gambling, Dominican Republic-Cigarettes.

134 AB Report in Brazil-Tyres, para. 145.
The important aspect here is that the AB would consider a qualitative definition of the contribution of a system to include importers to climate protection as adequate and would not require a quantified analysis or even substantiation of this contribution, although such quantitative analyses would be helpful in the proceedings. In the Brazil-Tyres case the AB found that not every contribution to the protective purpose was sufficient, but requires a “material contribution” to the achievement of the objective. Thus a system to include importers would meet this criterion if it made a “material contribution” to climate protection, which should be quantified for the purposes of substantiation if possible, although this is not essential. This means that a system to include importers must be able to substantiate a contribution to climate protection. The mere compensation for (alleged) competitive disadvantages without any impact on the global development of greenhouse gas emissions would not be sufficient (see 3.1.4.1 above).

Furthermore the AB interpreted “necessary” to mean that there could be no less trade-restrictive alternative available. In practice the AB granted the Member States – as sovereign states – broad discretion, which is why this should not pose any major obstacles to a system for inclusion of importers. However, it is possible that a system to include importers could pose (considerable) administrative obstacles that could be classified as a trade restriction if the administrative workload is disproportionate relative to the objective of the provision. It is unlikely, however, that this would remove the basis for justification pursuant to lit. g). In any case it is advisable to keep the administrative requirements – apart from fundamental considerations – on a system to include importers as modest as possible, also in light of the GATT.

3.1.4.3 Chapeau

In addition to the requirements in a) to j), a system to include importers is only justified under Article XX GATT if it is justified under the introductory paragraph to Article XX, referred to as the chapeau. This states that a system to include importers cannot constitute “arbitrary or

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135 Brazil-Tyres, AB Report, para. 145

136 Brazil-Tyres, AB Report, para. 150.

137 A different view is held by Hilbert, Berg, page 25, who claim – without grounds – that a BAM in itself incentivises climate-friendly action in the exporting countries. However, it is doubtful whether a BAM has the potential to encourage other countries to introduce a more ambitious climate protection policy. China, for example, which would be the first candidate for a BAM under US law, accounts for one third of global steel production but only exports 1% to the US.

138 Brazil-Tyres, AB Report, para. 172.
unjustifiable discrimination between countries where the same conditions prevail, or a disguised restriction on international trade”. In practice the chapeau is the authoritative criterion for the legality of a measure motivated by environmental policy. In the US-Shrimp, US-Gasoline and Brazil Tyres cases, the AB ruled that the measures under dispute were unlawful because they breached the chapeau.\(^{139}\)

### 3.1.4.3.1 Arbitrary or unjustifiable discrimination

According to case-law, a system to include importers would constitute “arbitrary or unjustifiable discrimination” if it was not rationally connected to the grounds for justification in a) to j). Therefore only these grounds for justification can be used; other grounds cannot be used as justification even if other public interests are the subject thereof:

“There is arbitrary or unjustifiable discrimination when a measure ... is applied in a discriminatory manner ‘between countries where the same conditions prevail’, and when the reasons given for this discrimination bear no rational connection to the objective falling within the purview of a paragraph of Article XX, or would go against this objective” (emphasis added)\(^{140}\)

In view of this ruling, a system to include importers that cannot substantiate any impact on protecting the environment would not be justified (see above). In the US-Shrimp case, the AB also found “arbitrary or unjustifiable discrimination” to exist because the USA demanded in the case that shrimp importers should use the same fishing methods for shrimp as in the USA. In the Brazil Tyres case, the AB found arbitrary or unjustifiable discrimination as well as a disguised restriction on international trade to exist because an import prohibition by Brazil on retreaded tyres did not apply to MERCOSUR countries but did apply to all other imports of retreaded tyres. A system to include importers would therefore constitute “arbitrary or unjustifiable discrimination” if costs engendered by climate policy for the domestic production were lessened or removed and such a de facto privilege were not granted to like imports. Accordingly, hardship clauses and other forms of free allocation as well as similar other privileges must therefore equally be granted to importers (see 3.1.2.2 above). Such discrimination would also exist if there were a difference in the calculation of the emission quantities between importers and domestic competitors such that importers would have to surrender a larger number of allowances (see 3.1.2.2 above). Discrimination would also exist if the circumstances in the respective country of origin were not adequately taken into consideration and the system to include importers were to result in a double burden on the


\(^{140}\) Brazil-Tyres, AB Report, para.227.
importer, for example because the importer is already obliged to take part in an emissions trading system in the country of origin.\textsuperscript{141}

It should also be noted that such discrimination would only be prohibited if it existed between “countries where the same conditions prevail”. In this regard, differentiation based on the objective conditions in the countries of origin appears permissible. In particular the privileging of developing countries, namely the LDCs, is considered permissible. Accordingly, all legislative bills for BAM in the USA provide for privileging of LDCs.\textsuperscript{142} Differentiation could also be graded based on the actual greenhouse gas emissions in the country of origin, i.e. allowances would have to be surrendered only for imports from countries whose greenhouse gas emissions exceed a certain threshold. It would be feasible to base these thresholds on emissions per capita and pro unit of GDP.

Nevertheless, differentiating based on these criteria specified is problematic. Although the condition “countries where the same conditions prevail” allows very broad scope for interpretation, as shown above, comparing different countries in terms of climate policy is difficult in practice and open to scrutiny (in court). While criteria such as per capita emissions or emissions per GDP unit may well be an objective criterion, they are so general that they will not be sufficient to invalidate objections based on the individual circumstances in the country of origin. Ratification of the Kyoto Protocol or of a successor agreement would not be sufficient on its own to render the country of origin and the country of destination comparable, because such comparability hinges on the climate protection policies actually implemented (see above).

Apart from the condition “countries where the same conditions prevail”, the AB held the US measures to protect turtles to constitute arbitrary or unjustifiable discrimination because the procedure for country classification was not transparent. When applied to a system for including importers, this means that the country lists must be prepared using a transparent procedure. The procedure proposed in the USA, according to which the President determines the country lists with the help of the EPA Administrator, does not appear to be sufficiently transparent, as the internal decision-making process at the EPA is not automatically clear for external parties. It is possible that such a gap in procedural transparency could be remedied by means of comprehensive hearings, which would of course increase the administrative workload accompanying a system to include investors. On the whole, blanket structures for a system to include investors lead to difficulty in avoiding arbitrary or unjustifiable discrimination.

\textsuperscript{141} Bordoff, page 22
\textsuperscript{142} Pauwelyn, 2008
3.1.4.3.2 Disguised restriction on international trade

Alternatively the contentious measure must not constitute a disguised restriction on international trade. In the US-Gasoline case, the AB elaborated a general definition of the term, whereby this part of the chapeau is designed to prevent disguised or indirect protectionism in particular:

“It is clear to us that 'disguised restriction' includes disguised discrimination in international trade. It is equally clear that concealed or unannounced restriction or discrimination in international trade does not exhaust the meaning of 'disguised restriction.' We consider that 'disguised restriction', whatever else it covers, may properly be read as embracing restrictions amounting to arbitrary or unjustifiable discrimination in international trade taken under the guise of a measure formally within the terms of an exception listed in Article XX. Put in a somewhat different manner, the kinds of considerations pertinent in deciding whether the application of a particular measure amounts to 'arbitrary or unjustifiable discrimination', may also be taken into account in determining the presence of a 'disguised restriction' on international trade. The fundamental theme is to be found in the purpose and object of avoiding abuse or illegitimate use of the exceptions to substantive rules available in Article XX.”

In light of this ruling, it appears plausible that a system to include importers would be classified as a disguised restriction on international trade by a court of arbitration if it is not structured identically to the European emissions trading system and if its impact on climate protection is modest but its protection for domestic products is strong. This is because in this case a system to include importers could be interpreted as privileging domestic producers, which would not be justified as it would have no environmentally protective impact.

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144 A different view is held by Hilbert, Berg, page 27, who argue that the objective of the BAM is important. However, the wording of Article XX shows that the intention of a BAM is irrelevant; the decisive factor is its actual trade-restrictive effect.
3.1.5 Interim finding

In theory, a system to include importers in an emissions trading system can be designed to be in accordance with WTO law. The best chance that such a system has of being compatible with WTO law is if it is structured identically to the European emissions trading system and calculates the quantity of allowances required for each importer on the basis of individually substantiated emissions. However, the administrative workload for such a provision relating to individual cases is huge. Blanket solutions are proposed to respond to the weak points inherent to such provisions relating to individual cases. These proposed blanket solutions pose a range of legal difficulties. As soon as importers are included in the European emissions trading system subject to other conditions, this would constitute unequal treatment, which is difficult to justify under Article XX. As a consequence, this means that all detailed provisions of the European emissions trading system – such as hardship clauses or allocation provisions – also have to apply without exception to importers. This renders a system to include importers that uses a blanket calculation method de facto impracticable. As a result, there is a fundamental dilemma: a lawful design for a system to include importers would be impracticable, but a practicable design would be unlawful.

3.2 Tariffs on imports

A BAM in lieu of a system to include importers in an emissions trading system could take the form of a tariff on imports. Imports into the Community could conceivably be burdened with a tax or fee in order to compensate for the burden on like domestic products engendered by climate policy. Such climate policy-related burden includes:

- Charges imposed in the Community on emissions generated or energy consumed in production (e.g. carbon taxes)
- Costs incurred by the emissions trading system, whether directly through the purchase of allowances or indirectly through higher electricity prices
- Charges imposed on energy directly (e.g. electricity tax, mineral oil tax)
- Costs caused by regulatory measures (e.g. energy efficiency standards).

In its specific implementation form, this group of BAM burdens the imported product at the border, i.e. the fee or tax is imposed on import. Many of the calculation issues discussed above are also relevant for tariff-based BAM. If domestic costs are compensated that stem from charges on energy consumption or emissions, the calculation is subject to the same
challenges as the system to include importers, i.e. a mechanism is needed that calculates the emissions or energy content of the imports in a non-discriminatory and reliable manner, either individually or using benchmarks. If costs are to be compensated that stem from regulatory measures motivated by climate policy and are independent of the respective energy consumption or allowances, new and even more difficult calculation problems have to be solved. This is because it is already difficult to calculate the burden on domestic products in this form, which is often disputed between the different parties involved. It appears impossible to estimate the costs of comparable regulatory measures in the import countries, which is why this topic will not be discussed in any further detail here.

In the following, tariff-based BAM are assessed for costs based on energy consumption or emissions during production. A BAM for costs engendered by the emissions trading system is also examined. Compensation for costs resulting from the direct taxation of energy will not be discussed in further detail here, as there is no direct relationship between these and the emissions trading system. Equally, costs incurred by climate policy regulations or the costs of transport emissions will not be assessed, as these costs are very difficult to calculate for imports, which is why compensation for these costs does not appear practicable. The following assessment is limited to Articles II and III GATT. No separate assessment will be carried out for Articles I and XX GATT, which are also relevant, because the legal considerations discussed above apply equally, as the objective of the provision is the same.
3.2.1 Compensation for charges on energy consumption and emissions during the production process

3.2.1.1 Article II (2); Add Article III GATT

2. Nothing in this Article shall prevent any contracting party from imposing at any time on the importation of any product:

a. 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 or produced in whole or in part.

If a BAM takes the form of a charge, the first question posed is the extent to which WTO law actually permits such compensation. Some are of the opinion that the GATT only permits a BAM under the prerequisites of Article II (2) a) GATT. Based on that interpretation, Article II (2) a) GATT would include an exhaustive catalogue of criteria for permissible BAM. Accordingly, Article II (2) a) GATT would only permit a BAM in the form of a charge if

- The charge is equivalent to an internal tax and is imposed in respect of a like domestic product or

- The charge is imposed in respect of an article from which the imported product has been manufactured or produced in whole or in part and

- There is no breach of Article III (national treatment obligation).

As regards the question of whether compensation for charges on energy consumption and emissions during the production process can be subsumed under Article II (2) a) GATT, the

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145 Puth, page 267 – 269 and Petersmann, page 146
Superfund ruling\textsuperscript{146} is particularly relevant. The subject-matter of the dispute in this ruling was, among other things, a tax under the \textit{US Superfund Act} on certain chemicals contained in domestic and imported substances. Under the \textit{US Superfund Act}, the Secretary of the Treasury imposes a tax on certain chemicals if the weight of the chemicals used in the production of the imported substance accounts for more than 50% of the total value of the materials used in production (determined on the basis of the predominant method of production). In the same way, chemicals can be taxed if they account for more than 50% of the total value of the materials used. For the purpose of taxation, importers are obliged to provide the relevant information to the tax authorities. In the event that the importer does not provide this information, a tax of 5% of the estimated value of the imported substance is levied. In derogation of this rule, the Secretary of the Treasury can issue a decree to have the imported substance taxed in the same way as if it had been produced using the predominant method of production in the USA.

The GATT panel ruled that this tax was a permissible border adjustment measure. The panel took the view that the tax constitutes a tax levied directly on a product and can thus be adjusted at the border by analogy to other direct taxes such as VAT or other sales taxes. The panel expressly argued that the GATT only distinguishes between direct versus indirect taxes when assessing the permissibility of border adjustment measures and does not accord any legal relevance to the political objective of the measure. It refers to the conclusions in the report of the \textit{Working Party on Border Tax Adjustments}:

\begin{quote}
"There was convergence of views to the effect that taxes directly levied on products were eligible for tax adjustment. Examples of such taxes comprised specific excise duties, sales taxes and cascade taxes and the tax on value added ... Furthermore, the Working Party concluded that there was convergence of views to the effect that certain taxes that were not directly levied on products were not eligible for tax adjustment. Examples of such taxes comprised social security charges whether on employers or employees and payroll taxes" (BISD 18S/100-101).\textsuperscript{147}
\end{quote}

In light of this report, the panel went on to state:

\begin{quote}
The Panel wishes to point out, however, that the Working Party on Border Tax Adjustment agreed that the provisions of the General Agreement on tax adjustment: "set maxima limits for adjustment (compensation) which were not to be exceeded, but below which every contracting party was free to differentiate in the degree of
\end{quote}

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\textsuperscript{147} \textit{Superfund}, para. 5.2.4.
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compensation applied, provided that such action WAS in conformity with other provisions of the General Agreement” (BISD 18S/100).

Consequently, if a contracting party wishes to tax the sale of certain domestic products (because their production pollutes the domestic environment) and to impose a lower tax or no tax at all on like imported products (because their consumption or use causes fewer or no environmental problems), it is in principle free to do so. The General Agreement’s rules on tax adjustment thus give the contracting party in such a case the possibility to follow the Polluter-Pays Principle, but they do not oblige it to do so.

In view of this ruling, it could be argued that Article II (2) a) GATT does not on principle prohibit a BAM in the form of a charge. In this regard, Article II (2) a) GATT does not preclude a tariff-based BAM for costs based on energy consumption or emissions during production on principle. Nevertheless it must be taken into account here that the panel did not clarify in the Superfund case whether or not the chemicals have to be physically contained in the end-product.\textsuperscript{148} The \textit{Working Party on Border Tax Adjustments} did not express any views on this question either. This means that there is still uncertainty surrounding this question, which is not clarified by the ruling, that potentially only those costs can be adjusted at the border which are linked to substances still physically contained in the product. In such a case, it would not be permissible to introduce a border adjustment measure for a charge on emissions resulting from production.\textsuperscript{149} It must be taken into account in this context that no uniform opinion is presented in the pertinent technical literature either.\textsuperscript{150} Regardless of the question of the permissibility in principle of BAM, each form a BAM might take must be measured against the other material provisions of the GATT, i.e. in particular GATT Article III (2) and GATT Article I.

\textsuperscript{148} Dhar, Das, page 16
\textsuperscript{149} Dhar, Das, page 16
\textsuperscript{150} Some authors take the view that BAM can only be based on the physical composition of the end-product (Pitschas, page 479 et seq.). Others are of the opinion that WTO members can also impose BAM on substances used in the production process, for example on energy used in production (see Hilbert, Berg, page 15, for this view). Consequently, pertinent technical literature also fails to clarify the extent to which burdens must be assessed on materials included in the imported substance.
2. The products of the territory of any contracting party imported into the territory of any other contracting party 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. Moreover, no contracting party shall otherwise apply internal taxes or other internal charges to imported or domestic products in a manner contrary to the principles set forth in paragraph 1.

Because charges on energy consumption during the production process constitute a tax or charge, GATT Article III (2) Sentence 1 is the authoritative provision. The condition of likeness as defined by GATT Article III (2) Sentence 1 must be interpreted along the lines already presented above for Article III (4). Accordingly, imported products cannot be burdened more than like products of national origin. Equal treatment means identical treatment, i.e. even the smallest amount of unequal treatment is prohibited. For the range of charges, this means that the charge on imported products must be identical to the charge on the like domestic product; the internal charge cannot be “higher than those that applied, directly or indirectly, to like domestic products”. In terms of the charges on energy consumption or emissions resulting from production that are under scrutiny here, this means that the energy consumption or the emission quantities provide the authoritative base on which charges for both the imported and the domestic product are levied.

In the Superfund case, the panel found that the tax burden of domestic and imported chemicals is the same, i.e. there is no unequal treatment:

The tax on certain imported substances equals in principle the amount of the tax which would have been imposed under the Superfund Act on the chemicals used as materials in the manufacture or production of the imported substance if these chemicals had been sold in the United States for use in the manufacture or production of the imported substance. In the words which the drafters of the General Agreement used in the above perfume-alcohol example: The tax is imposed on the imported substances because they are produced from chemicals subject to an excise tax in the United States and the tax rate is determined in principle in relation to the amount of these chemicals used and not in relation to the value of the imported

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151 Section 3.1.21.; AB, EC – Asbestos, para. 99.
152 Japan-Alcoholic Beverages II, page 23
153 “Even the smallest amount of ‘excess’ is too much”, AB, Japan – Alcoholic Beverages II, page 22. See also Mavroidis, page 148.
substance. The Panel therefore concluded that, to the extent that the tax on certain imported substances was equivalent to the tax borne by like domestic substances as a result of the tax on certain chemicals the tax met the national treatment requirement of Article III:2, first sentence.

The panel did not, however, deal with the details of the Superfund ruling. Instead, it automatically assumed equal treatment. In particular the panel did not assess to what extent the data provided by importers are correct. The panel also did not assess the fact that importers pay a higher tax (5% of the value of the goods) than like domestic products (2%) if importers do not provide production data on import. The panel did criticise the latter point, because substantially higher taxation of importers could not be ruled out. On the whole, however, it found the Superfund ruling to be compatible with the GATT because the Superfund Act granted the US Secretary of the Treasury the authority to exclude imports from this penalty tax by decree and instead to tax imports as if they had been produced using the predominant method of production in the USA. This ruling is odd in that the Secretary of the Treasury had not made use of this authority when the ruling was passed. The panel was satisfied with the guarantee by the USA that it would never impose the penalty tax.

As a result, therefore, the Superfund ruling could be used in principle in order to justify the compatibility of a BAM for charges on energy consumption and emissions during the production process. This is because the Superfund ruling deals with the adjustment of certain costs at the border (see previous section). However, it must be taken into account that the energy consumption in the production of a range of industrial goods is much more difficult to calculate than the use of a group of selected chemicals that are employed in a limited number of production processes. In addition, the Superfund ruling leaves some important questions unanswered. In particular, these include hardship clauses for domestic producers, feasibility of controls and comparisons (see 3.1.2.2 above).

3.2.1.3 GATT Article III (2) Sentence 2

If the imports covered by a BAM are not like the domestic product group but are in direct competition with the domestic product group, Article III (2) Sentence 2 applies in conjunction with Add Article III. This provision relates to products that are in less-intensive competition than products covered by Sentence 1.\textsuperscript{154} Case-law has ruled on the existence of direct competition on a case-by-case basis, but has generally assumed a broad interpretation of

\textsuperscript{154} In Canada – Periodicals, page 28, Korea – Alcoholic Beverages, No. 118.
the term “direct competition”. The provision in Sentence 2 entails a different legal consequence from Sentence 1. Sentence 2 does not require identical treatment of imported and domestic products. Instead it requires merely treatment that is approximately the same *(de minimis rule)*. This would render a certain degree of unequal treatment permissible. Case-law and pertinent technical literature have interpreted this criterion to mean that a charge or tax levied in a protectionist manner would be incompatible with Sentence 2. Thus the focus of the assessment is in particular on the objective purpose, the structure and the form of the measure.

Therefore, for products that are not like products but are in direct competition, it is easier to avoid a breach of Article III (2) Sentence 2 than a breach of Sentence 1, which requires identical treatment of like products. However, the *de minimis* legal consequence also depends on knowing the energy consumption or the emission quantity during production, because if Sentence 2 applies, it must be possible to determine whether the unequal treatment is only minimal, i.e. *de minimis*. Another aspect is that, in addition to the *de minimis* rule, a different burden is only permissible if the different treatment does not have the objective purpose of protecting domestic production (Article III (2)). When assessing protectionist intention, the ruling bases this on the objective “design, the architecture, and the revealing structure of a measure”.

### 3.2.2 Compensation for costs incurred by the emissions trading system

This form of BAM serves to compensate for costs imposed on domestic producers by the emissions trading system, i.e. it does not involve the substantiation of allowances, but instead the financial compensation for the costs engendered by the emissions trading system. These are intended to mean only the **direct costs caused by the purchase of allowances**. This is because indirect costs, in particular in the form of higher electricity prices, are more difficult to estimate reliably. Secondly these costs cannot be adjusted at the

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155 AB, Japan – Alcoholic Beverages II, page 25.
156 AB, Japan – Alcoholic Beverages II, page 27; Canada – Periodicals, page 29.
157 AB, Japan – Alcoholic Beverages II, page 27; Chile – Alcoholic Beverages, No. 49. Korea – Alcoholic Beverages, No. 153.
158 AB, Japan – Alcoholic Beverages II, page 29; Chile – Alcoholic Beverages, No. 62 and 71. Canada – Periodicals, page 30.
border because they are indirect costs. Pursuant to GATT Article II (2) a), only those costs can be adjusted at the border that are imposed directly on a product (see above).

In our opinion, the costs caused directly by the emissions trading system constitute a charge as defined by GATT Article III (2) and not a domestic regulation pursuant to GATT Article III (4). This is because the issue in question is not the surrender of allowances as assessed above for the system of including importers but the compensation for costs caused by the emissions trading system. On the whole, the issue of ascertaining the relevant legal provision, i.e. either GATT Article III (2) or (4), is of lesser importance, however, as the legal consequence of both provisions is the same (see 3.1.2 above). For this reason we refer here to the assessment there (see interim finding in 3.1.5).

### 3.2.3 Interim finding

Two forms of tariff-based BAM were assessed in this section. The first involves compensation for costs based on the energy consumption or the emissions during production, while the second relates to compensation for the costs caused by the emissions trading system. Both forms must comply with the regulations in GATT Article III (2). This means that the charge on imported products must be identical to the charge on the like domestic product; the internal charge cannot be “higher than those that applied, directly or indirectly, to like domestic products”. In conclusion, a tariff-based BAM must resolve the same issues as a system to include importers in emissions trading, i.e. it must also be measured against GATT Articles I and III and comply with the provisions in Article XX as appropriate (see 3.1.5).

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159 “Even the smallest amount of ‘excess’ is too much”, AB, Japan – Alcoholic Beverages II, page 22 or Mavroidis, page 148.
4 Principles of the UNFCCC

In addition to WTO law, BAM must also comply with the United Nations Framework Convention on Climate Change. In particular the principle of common but differentiated responsibilities (Article 3 (1) UNFCCC), the principle of an open international system (Article 3 (5) UNFCCC) and the principle of cooperation are relevant for this assessment. BAM could be incompatible with the principle of common but differentiated responsibilities because they are expected to be imposed by those countries that bear a special historical responsibility for the current levels of greenhouse gases in the atmosphere. BAM could therefore be suitable for undermining the principle of common but differentiated responsibilities. BAM have a trade-restrictive effect inherent in their intention and could therefore breach the principle of an open international system. Furthermore, BAM are generally introduced as a unilateral measure, which would make them run counter to the principle of cooperation.

The compatibility of a BAM with these principles is assessed below. The assessment is not based on individual forms of a BAM, however, because the legal assessment does not generally depend on the specific form of a BAM.

4.1 Principle of common but differentiated responsibilities

UNFCCC Article 3 (1) sets out the principle of common but differentiated responsibilities, which is also contained in Principle 7 of the Rio Declaration. According to Article 3 (1) UNFCCC, the Parties should protect the climate system for the benefit of present and future generations of humankind, “on the basis of equity and in accordance with their common but differentiated responsibilities and respective capabilities. Accordingly, the developed country Parties should take the lead in combating climate change and the adverse effects thereof”. Based on this principle, UNFCCC Article 4 determines that “All Parties, taking into account their common but differentiated responsibilities and their specific national and regional development priorities, objectives and circumstances” are subject to different commitments as set out in Article 4 (2).

In terms of content, it is difficult to determine the precise substance of this principle of common but differentiated responsibilities. Some argue that this principle allows for differentiated treatment of countries that have the same status under general international law. Specifically it is assumed that the principle allows for other standards to be applied to
developing countries and for their conduct to depend on the solidarity shown by developed countries.\textsuperscript{160} However, this appears to be a misinterpretation of the standard, because the differences in the contractual commitment stem not from the principle of common but differentiated responsibilities, but from the different commitments resulting from the specific detailed provisions of the UNFCCC, such as Article 4, which sets out in (1) a catalogue of common commitments and in (2) the specific commitments of Annex I countries. On the whole the principle does not give rise to any legally operative boundaries for action. To do this the principle would need more specific provisions (for implementation). As such it does not have any regulatory effect of its own. The principle has more of a declaratory nature, describing the different legal obligations of the Contracting States, but does not establish any legal obligations of its own or grant any independent basis for entitlement. This means that only WTO law as assessed above has its own \textit{legal substance} (see section 3). Consequently, the principle of common but differentiated responsibilities is of no \textit{legal} consequence for the measures assessed above.

Politically it can be argued that a BAM can undermine a (future) climate regime. This is because, on the one hand, countries that introduce a BAM will also accept the differentiated commitments of a new climate protection regime, but on the other hand these countries would undermine these agreements by introducing a BAM. However, this line of argument has no legal basis in UNFCCC Article 3 (1), because that provision is dependent on the more specific provisions for implementation of a new agreement in order to have regulatory effect. The prohibition on contradictory behaviour cannot be used here either. This prohibition holds that a party is bound by the expectations that another party could have in good faith as a result of explicit statements or messages implied by the behaviour of the party.\textsuperscript{161} If a (new) climate protection regime is adopted, however, the Contracting States are very unlikely to enter into a commitment not to take any further climate protection measures (even if these are bilateral). The Contracting States will exclude such a broad trade restriction.

\section*{4.2 Principle of an open international system and principle of cooperation, UNFCCC Article 3 (5)}

The Parties should work together in order to promote a strong and open international system that leads to sustainable economic growth and sustainable development in all Parties, in particular in the developing countries, and enables them to cope better with the

\textsuperscript{160} Birnie, page 133

\textsuperscript{161} Ipsen, page 203 no. 7.
consequences of climate change. Climate protection measures, including unilateral measures, should not be a means of arbitrary or unjustifiable discrimination or a disguised restriction on international trade.

In this regard, a BAM as a trade-restrictive measure could violate these principles. Consequently these provisions do not go beyond the detailed provisions of WTO law. Instead they are declaratory principles that do not have any regulatory effect of their own vis-à-vis WTO law. Reference is made in this regard to the above detailed assessment of WTO law.

5 Interaction and relationship between the proposed privileges

The political debate suggests that a combination of both proposed privileges – direct compensation and border adjustment – is quite probable. Discussions in the political arena indicate that domestic producers will be granted relief, while at the same time importers will be burdened. The legislature is thus faced with the key issue of the relationship between the different proposed privileges. The present assessment has identified some aspects that are significant for the relationship between the proposed privileges. It should be noted that these aspects are only relevant if a combination of the different proposed privileges is actually considered:

- **The grounds for free allocation no longer apply in the case of border adjustment:** At least some of the grounds for free allocation of allowances no longer apply if border adjustment is introduced. As a result the allowances would have to be discontinued or reduced. There are several reasons for this:
  - **Reduction of the carbon leakage risk as the purpose of the Directive:** The revised EU Emissions trading directive provides that allowances should basically be auctioned for all enterprises in all sectors. The transitional rule provides for industrial installations to continue receiving free allowances that are allocated on the basis of harmonised allocation rules using benchmarks. This continued free allocation in turn breaks down into two components:
installations in all industries will initially receive 80% of the calculated benchmark allocation free of charge. This share will then be reduced each year, so that by 2020 only 30% of the calculated benchmark will be allocated free of charge. Free allocation is planned to cease entirely in 2027. This annual reduction does not apply to enterprises in industries exposed to a significant risk of carbon leakage. These industries will receive 100% of the calculated benchmark allocation free of charge (initially limited until 2020).

The rationale for the special allowance for enterprises in sectors exposed to a carbon leakage risk is that enterprises in these sectors are not in a position to pass the costs of the allowance on to their customers via product prices. Recital (24) in the Directive expressly justifies the free allocation of allowances with the “risk of carbon leakage”. This argument no longer applies in the case of border adjustment, as border adjustment compensates for the competitive disadvantage that is the cause of the carbon leakage risk. At least the part of the free allocation granted on account of the carbon leakage risk should therefore no longer be granted if a border adjustment measure is introduced. It would then only be necessary to grant free allowances for the production of export goods, in order to compensate exporters for the cost burden engendered by the emissions trading system and the related losses in competitiveness on foreign markets. Any free allocation beyond this scope would mean that enterprises would benefit twice: the free allocation would compensate for an apparent disadvantage that in fact has already been removed by border adjustment.

This reasoning is additionally substantiated by the fact that Article 10a (12) makes the free allocation of allowances from 2013 and the following years until 2020 “subject to” Article 10b. Article 10b (1) b) provides the option for the Commission to make proposals for a system to include importers. This provision makes it clear that the legislature has recognized the link between a system to include importers on the one hand and free allocation on the other, even if the term “subject to” in itself does not preclude a combination of a system to include importers and free allocation. Nevertheless the proviso in Article 10a (12) requires that the mutual effects of a system to include importers and free allocation must be taken into account in light of the purpose of the standard – which is to avoid carbon leakage.

- **Free allocation for importers:** If a system to include importers were introduced while granting free allocation to domestic enterprises at the same time, importers would also have to be entitled to free allocation in order to
ensure equal treatment (see 3.1.2 above). If this were to be managed in the same way as the existing allocation procedure for domestic operators of installations, where the applicants have to provide extensive and, if necessary, verified information on historical production and emission volumes, this would result in a disproportionate administrative workload for the system to include importers (see section 3.1 above).

If the allocation decision and the obligation for importers to surrender allowances were calculated on the basis of benchmarks, the system to include importers would result in a fixed surcharge per product. Both the allocation and the obligation to surrender would be specified per imported product unit, and the burden would correspond to the difference between the allocation and surrender benchmark. This would mean that the producer would not have any influence on the amount of its allocation or obligation to surrender and, as a result, would not have any incentive to reduce its emissions per product unit. If the case discussed here were to apply, where the EU allocation benchmarks are used in order to determine the amount of surrendered allowances for imported products, this would result in an absurd situation in which importers would first receive a free allocation per product unit according to the benchmark and would then have to compensate for emissions according to the same benchmark. This would practically neutralise the effect of a system to include suppliers. On the whole there are doubts in both cases as to whether the incentives provided by the system to include suppliers justify the administrative workload.

- **Aid for energy-intensive sectors with a large carbon footprint:** In the case of emissions trading, such aid does not initially impair the effect of the instrument, as this is determined by the amount of the cap. However, the aid increases the overall costs of achieving the objective by excluding certain potential for reduction from the effect of the price signal: the emissions trading system will lead to the most cost-efficient reduction measures being implemented first and the costs of reducing emissions minimised as a whole only if the price signal of the emissions trading system applies equally in all sectors. Any exception will lead to the most cost-efficient reduction measures being neglected in individual sectors. Because the overall cap is fixed, more expensive reduction measures have to be carried out in other sectors instead, which in turn pushes up the overall costs of achieving the objective. Such exceptions undermine the credibility of the instrument and ultimately diminish the chances for further emission reductions achieved via more challenging caps in subsequent years.

- **Aid can undermine the grounds for a BAM pursuant to GATT Article XX:** It must also be taken into account that aid generated by a BAM undermines justification
pursuant to GATT Article XX. For example, this would be the case if revenue from a BAM were to flow into the general budget without any specific environmental policy objective. This would be especially true if revenue from a BAM were to be passed on to particularly inefficient sectors that are harmful to the environment. This type of subsidisation would undermine the environmental policy objective of a BAM and potentially lead courts of arbitration to refuse to recognise the environmental policy objective of a BAM as a whole and to consider the measure as disguised protectionism. This in turn would preclude justification under Article XX.

• **Avoiding double burden:** A BAM must not result in a double burden for importers, both for economic reasons and for reasons of WTO law. In order to avoid such a double burden, the charges and other costs paid abroad as a result of the climate protection instruments in place there would have to be credited to the BAM, which leads to considerable difficulties in practice.\(^\text{163}\) This is because such an arrangement would require reliable information concerning the climate protection instruments used in the individual countries of origin, their effects and the technologies employed there in the production of the products in question, the fuels used and the CO\(_2\) quantities emitted. Based on this information (which is difficult to obtain), the additional costs caused by climate protection policy would have to be reliably measured. This already poses difficulties within the EU.\(^\text{164}\) It will be much more difficult, if not impossible, to arrive at a reliable calculation for other countries.

### 6 Summary and evaluation

Instruments such as direct compensation to companies affected and border adjustment measures are currently under discussion in order to compensate for competitive disadvantages caused – or allegedly caused – by the European emissions trading system. Some of these measures are already provided for in applicable law. The extent to which these measures can actually compensate for competitive disadvantages is the subject of great controversy. By contrast, there is widespread agreement that the effect of these instruments on environmental policy is negligible or even counterproductive. Compensation payments to energy-intensive industries are counterproductive from an environmental policy

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\(^{163}\) Hilbert, Berg, page 9

\(^{164}\) Hilbert, Berg, page 9
perspective. They privilege the ‘polluter’ and undermine incentives to produce in a more environmentally friendly manner. BAM can lead to trade flows being rerouted, with possible scenarios where countries burdened by a BAM react to the introduction of a BAM by no longer exporting into countries that have implemented BAM, but into a third country instead that has not. It is also doubtful whether a BAM has the potential to encourage other countries to introduce a more ambitious climate protection policy. China, for example, which would be the first candidate for a BAM under US law, accounts for one third of global steel production but only exports 1% to the US.\(^{165}\) The greatest potential to influence environmental policy – in principle and, depending on the form, in detail – involves a system to include importers in an emissions trading system, because the European emissions trading system would then also apply to importers – at least in theory. Notwithstanding these restrictions, there appears to be consensus that direct compensation or BAM could help to foster the political enforceability of climate protection in the US but also in the EU.

The legal assessment of the two groups of measures, direct compensation and BAM, has identified a range of difficult questions. Direct compensation in the form of free allowances is not particularly problematic from a legal point of view. Both free allocation of allowances and direct compensation payments are compatible with the relevant rules on state aid, depending on their detailed form. By contrast, it is very difficult to design a BAM so as to render it both practicable and lawful. Both groups of measures must be assessed against the GATT and Community law as the authoritative basis. The United Nations Framework Convention on Climate Change is of no inherent further relevance in this regard.

Our assessment is summarised below for each of the instruments examined.

### 6.1 Direct compensation

The **free allocation of allowances** to energy-intensive sectors or subsectors does not constitute impermissible aid under the Community rules on state aid or the SCM Agreement. Free allocation does not constitute aid as defined by Article 107 (1) TFEU, as this measure is inherent in the emissions trading system and therefore does not amount to company-specific support. This assessment would be different if the European Commission were not to take all sectors affected into account equally when determining the sectors to benefit from free allocation. Sectors that were not taken into account could then argue that their competitors were receiving specific aid. According to the SCM Agreement, free allocation is a subsidy but it lacks the specificity required for the purpose of this Agreement.

\(^{165}\) Houser, page 3
Financial compensation measures for the additional costs caused by the emissions trading system are basically compatible with the relevant law on state aid:

- **Community rules on state aid:** Energy price subsidies and reductions in the taxes incurred for the consumption of electricity qualify as aid and as such are prohibited under the Community rules on state aid. These financial compensation measures are, however, compatible with the internal market if they only compensate for the (net) extra costs incurred by the installations in the energy-intensive sectors or subsectors selected by the Commission due to higher electricity prices. These (net) extra costs must be calculated according to the “ex-ante benchmarks” as defined by Article 10a (6) in Directive 2009/29/EC. EU Member States can grant financial compensation in the form of energy price subsidies only after they are approved by the Commission. Tax reductions do not require such approval.

- **WTO law:** Financial compensation measures are specific subsidies pursuant to the SCM Agreement. As such, these compensation measures are actionable by other WTO members. However, such action requires substantiation in the individual case that the measure in question actually causes adverse effects to the interests of another WTO member. In the case of compensation for additional costs caused by the emissions trading system, this is generally not likely to be the case.

### 6.2 Border adjustment measures

The introduction of border adjustment measures, whether these take the form of including importers in the European trading system or a tariff-based charge on imports, poses a large number of legal problems. The probability that such measures will be considered legal is directly proportional to their potential to reduce emissions and the scope of how the specific individual case is taken into account. On the whole, BAM appear to face an irreconcilable dilemma: On the one hand, the probability of structuring a BAM in accordance with WTO law increases when the individual case and its effect on climate policy are taken into account. On the other hand, the practical implementability and political enforceability of the measure then decreases, similar to the principle of communicating pipes. Conversely, blanket solutions have the advantage of being practicable, but are legally problematic and not very ambitious in terms of climate policy. This renders their compatibility with the GATT, in particular their justification pursuant to GATT Article XX, more improbable.

In detail, the following conclusions are drawn:
6.2.1 Inclusion of importers in the European emissions trading system

The inclusion of importers in the European emissions trading system is a BAM variant that is subject to particularly intensive political debate. Inclusion of importers in an emissions trading system generally involves including importers in the European emissions trading system from those sectors that are already covered by the EU Emissions trading directive. The measure would oblige importers to substantiate the quantity of allowances upon import, in the same way as with a like product manufactured in the Community. By linking the inclusion of importers to the European emissions trading system and the equal treatment obligations in the GATT, it automatically follows that only products can be included from such sectors that are covered by the European emissions trading system. The decisive question in terms of legality and enforceability of a system to include importers is how many allowances the importer has to substantiate on import.

Such a system is most likely to be deemed compatible with WTO law by a court of arbitration if it is designed in the same way as the European emissions trading system and calculates the quantity of allowances required from each importer on the basis of individually substantiated emissions. As long as this method can ensure that importers and domestic competitors are treated identically, i.e. they must substantiate the same quantity of allowances under the same conditions, GATT Articles I and II will not be breached. Detailed provisions can nevertheless pose difficult legal questions. Furthermore, the administrative workload for provisions relating to individual cases is huge. It also begs the question of the extent to which it will actually be technically possible to implement the substantiation of emissions in practice in each individual case. In practice, it will be difficult to verify even the emission quantities claimed by an importer for example. The European emissions trading system bases allocation on emissions figures that are verified by independent experts. The question here is how comparable verification can be implemented at a global level.

Blanket solutions are proposed to respond to the weak points inherent to such provisions relating to individual cases. These proposals can be broken down into two groups: the first group uses the emissions generated in the country of origin as a basis for calculation, while the second group bases the calculation on the emissions in the country of destination. The first group comprises proposals to record importers in country lists, i.e. countries are listed according to certain criteria relevant for climate policy, and importers from these countries must either substantiate allowances or are exempted from this duty. The second group includes proposals that calculate the amount of emission quantities to be substantiated using the production method in the country of destination.

These proposed blanket solutions pose a range of practical and legal difficulties. Depending on their design, the following problems have to be solved: All solutions must meet
the requirements of GATT Articles I and III. If these provisions are breached, this can be justified pursuant to GATT Article XX.

- **Efficient or best available technology:** Based on this proposal, an importer would have to purchase the number of allowances that a domestic producer would need using the most efficient or best available technology in production. This proposal would reduce the administrative workload considerably, but it would be unsatisfactory from an environmental perspective because, for example, the BAM would then be at a relatively low level and would only provide comparatively little incentive abroad. This approach would also compensate for potential competitive disadvantages only to a small degree. In terms of WTO law, this proposal also poses a range of considerable difficulties:

  o **GATT Article III (4):** Based on the interpretation in case-law, a system to include importers must ensure the same competitive conditions for importers and domestic producers in *each individual case*, i.e. equal treatment of importers and domestic producers on average is not sufficient to meet the requirements of Article III (4). Based on this interpretation, there are doubts as to whether blanket approaches can be designed in such a manner that they can ensure the same competitive conditions *in the individual case*. It would be possible to design this system such that both importers and domestic producers can substantiate their emissions using best available technologies or similar benchmarks. While this would ensure equal treatment, it would render the emissions trading system as a whole meaningless, as there would no longer be any incentive for installations to reduce actual emissions. It would not appear to make sense or be politically realistic to amend the Directive in such a fundamental way.

To the extent that hardship clauses apply to domestic producers under the European emissions trading system, as provided for by Sec. 6 ZuG 2012 for example, these clauses must also apply to importing competitors. Depending on the scope, this could cancel out the administrative ease of a benchmark system. As a result, it may become necessary in terms of WTO law to avoid hardship clauses completely, and were it solely in order to avoid legal disputes with importers concerning hardship clauses. However, this could have a negative effect on the political enforceability or even the constitutionality of the emissions trading system.

  o **Article XX:** Climate protection falls under Article XX b) or g). In view of the relevant case-law, a system to include importers must be able to prove that it chiefly serves to protect the climate and does not constitute a measure with
the sole or primary aim of protecting European industries. Although a system to include importers does not have to quantify its effect on climate protection, any justification pursuant to Article XX becomes problematic if studies cast a shadow of doubt on the effect of such a system on environmental policy. This problem could be especially relevant in the case of a system to include importers where the attendant calculation is based on an environmentally weak BAT standard.

A system to include importers in the emissions trading system would constitute “arbitrary or unjustifiable discrimination” – which is prohibited according to the chapeau – if the European emissions trading system provisions were not to apply identically to importers. As a consequence, this means that “arbitrary or unjustifiable discrimination” would exist if any climate protection-related burden were to be lessened or removed for domestic production and such a de facto privilege were not granted to like imports. Such discrimination would also exist if the circumstances in the respective country of origin were not adequately taken into consideration and the system to include importers would result in a double burden on the importer, for example because the importer is already obliged to substantiate allowances in the country of origin. Furthermore, the AB held the US measures to protect turtles to constitute arbitrary or unjustifiable discrimination because the procedure for country classification was not transparent. It would be difficult for any of the US legislative bills currently under discussion to counter this objection.

- **Predominant production method in the EU:** This system would be designed along the same lines as the best available technology, but it would have the advantage that it presents the actual burden more accurately because it is not based on BAT but the predominant production method in the EU (which is less ambitious). As a result, importers would generally have to substantiate more allowances on import. Apart from this advantage, the legal difficulties posed are the same. In addition, this proposal must define the term “predominant production method” and – unlike the case of the Seville process – cannot refer to an ongoing process.

- **Country lists:** Based on this proposal, certain average emissions are estimated for importing countries (average emissions per GDP, per sector or per capita), or importing countries are categorised according to their international climate protection commitments. These criteria are used to create lists of the countries for which importers would have or would not have to substantiate allowances. One problem with this system is that importers do not have any incentive to reduce their production emissions to below the country average. Secondly it creates incentives to carry out
imports via third countries for which importers do not have to substantiate allowances. Apart from these difficulties, the compatibility of this model with the GATT is doubtful:

- **GATT Article III (4):** To the extent that the inclusion of importers works on the basis of **country lists** that use emission averages per importing country as a calculation base, it appears impossible to ensure equal treatment in each individual case, as is required by GATT Article III (4). The reason is that it is almost impossible to “condense” the climate protection policy of an importing country in a country list in such a manner as to rule out the possibility of an importer pleading the special aspects of its individual case or country of origin.

- **GATT Article I:** This provision prohibits both **de jure** and **de facto** discrimination of imports based on their country of origin. As a result, differentiated treatment of imports on the basis of country lists appears to be incompatible with the most-favoured-nation principle. The fact that differentiation based on country lists is not in fact based on the origin of a product but on the respective national climate protection policies does nothing to change this finding. This line of argument fails to recognize that GATT Article I also prohibits **de facto** discrimination. It also assumes that the national climate protection policies are comparable in that they could provide a basis for a system to include importers that differentiated based on country lists.

- **Country lists with assessment of individual cases:** This proposal is based on the prior proposal but gives importers the option to prove that their own emissions are lower. This system thus creates an incentive to invest in more efficient production processes. However, the disadvantage is that it involves more administrative work than a system based solely on country averages. This system also has the advantage that it resolves some objections concerning compatibility with WTO of the country list system described in the previous point.

### 6.2.2 Tariff-based border adjustment measures

A BAM can also take the form of a tariff on imports. It would be feasible to levy imports into the Community with a tax or fee in order to compensate for climate policy-related costs of like domestic products. Such costs can include:
• Charges imposed in the Community on emissions generated or energy consumed in production (e.g. carbon taxes)

• Costs caused by the emissions trading system, whether directly through auctioning or indirectly through higher electricity prices

In view of the relevant case-law, it could be argued that GATT Article II (2) a) does not in principle prohibit a BAM in the form of a charge. Nevertheless it must be taken into account here that the panel did not clarify in the Superfund case whether or not the chemicals have to be physically contained in the end-product. The Working Party on Border Tax Adjustments did not express any views on this question either. This means that there is still uncertainty surrounding this question, which is not clarified by the ruling, that potentially only those costs can be compensated for that are linked to substances still incorporated in the product. In such a case, it would not be permissible to introduce a border adjustment measure for a charge on emissions resulting from production. Regardless of the question of the permissibility of BAM in principle, each design of any such measure must be assessed on the basis of the other material provisions of the GATT, i.e. in particular GATT Article III (2) and GATT Article I.

Because charges on energy consumption during the production process clearly constitute a tax or charge, Article III (2) Sentence 1 is the authoritative provision. The condition of likeness as defined by GATT Article III (2) Sentence 1 must be interpreted along the lines already presented above for Article III (4). Accordingly, imported products cannot be burdened more than like products of national origin. Equal treatment means identical treatment, i.e. even the smallest amount of unequal treatment is prohibited. As to the range of charges, this means that the charge on imported products must be identical to the charge on the like domestic product; the internal charges cannot be “higher than those that applied, directly or indirectly, to like domestic products”.\(^{166}\) In terms of the charges on energy consumption or emissions generated in production that are under scrutiny here, this means that the energy consumption or the emission quantities provide the authoritative base on which charges for both the imported and the domestic product are levied. As a result, a BAM must resolve the same issues as a measure to include importers in an emissions trading system.

\(^{166}\) “Even the smallest amount of ‘excess’ is too much”, AB, Japan – Alcoholic Beverages II, page 22. See also Mavroidis, page 148.
6.3 Interaction and relationship between the proposed privileges

A combination of free allocation of emissions, financial compensation and border adjustment measures poses a variety of particularly delicate questions. The first point of importance for the relationship between these proposed privileges is that a BAM basically obviates the rationale for free allocation and financial compensation measures. This is because border adjustment should serve to compensate for the competitive disadvantage which is the cause of the carbon leakage risk and which thus provides the grounds for free allocation of emissions. Another important aspect for the relationship between free allocation and BAM is that importers would also have to benefit from free allocation of allowances if a system to include importers were to be introduced while at the same time granting free allocation to domestic producers. Such equal treatment is required by the non-discrimination principle in GATT Article III. However, this would also lead to skyrocketing administrative workload associated with the system to include importers. Finally it should be taken into account that aid for energy-intensive enterprises is problematic from an environmental policy point of view and can undermine justification pursuant to GATT Article XX.

7 References

7.1 List of rulings


Appellate Body Report on European Communities – Conditions for the Granting of Tariff Preferences to Developing Countries, WT/DS246/AB/R, 7 April 2004


Panel Report on United States-Restriction on Imports of Tuna, GATT, BISD 39S/155, 3 September 1991


7.2 Bibliography

Birnie, Patricia, Boyle, Alan; Redgwell, Catherine (2009): International Law and the Environment, 3rd edition

Biermann, Frank and Brohm, Rainer, “Implementing the Kyoto Protocol without the USA: The Strategic Role of Energy Tax Adjustment at the Border”. 4 Climate Policy (2005), page 284

Bordoff, Jason: International Trade Law and the Economics of Climate Policy: Evaluating the Legality and Effectiveness of Proposals to Address Competitiveness and Leakage Concerns, 2008


Calliess, Christian; Ruffert, Matthias (eds.): EUV/EGV. Kommentar (3rd edition 2007)


Cossy, Mireille, “Determining “likeness” under the GATS: Squaring the Circle?”. WTO staff working papers, ERSD 2006-8, http://www.wto.org/english/res_e/reser_e/wpaps_e.htm


Dhar, Biswajit; Das, Kasturi: The European Union’s Proposed Carbon Equalization System: Can it be WTO Compatible?, 2009

EU Commission: Vademecum Community Rules on State Aid (as of: 30 September 2008).

Fischer, Carolyn; K. Fox, Alan February 2009: Comparing Policies to Combat Emissions Leakage Border Tax Adjustments versus Rebates

Graichen, Verena et al. (2008). “Impacts of the EU Emissions Trading Scheme on the industrial competitiveness in Germany”. Study as part of the UFOPLAN (Environmental Research Plan) project “Wissenschaftliche Begleitung und Beratung bei der Weiterentwicklung des europäischen Handels mit Treibhausgasemissionen im Rahmen der Überarbeitung der Emissionshandelsrichtlinie 2003/87/EG” (scientific support and advice in the further development of the European trade with greenhouse gas emissions as part of revising the Emissions trading directive 2003/87/EC) (case code 3707 41 501)


Green, Climate Change, Regulatory Policy and the WTO, 8 (1) JIEL 2005, page 143 (157).

Heidenhain, Martin (ed.): Handbuch des Europäischen Beihilfenrechts (2003)
Herrmann, Christoph; Weiss, Wolfgang; Ohler, Christoph: Welthandelsrecht (2nd edition 2007)


Mavroidis, The General Agreement on Tariffs and Trade. A Commentary, 2005

Mestmäcker, Ernst-Joachim; Schweitzer, Heike: Europäisches Wettbewerbsrecht (2nd edition 2004)


OECD: Cost-Effective Actions to Tackle Climate Change. Policy Brief, August 2009


Potts, Jason, “The Legality of PPMs under the GATT: Challenges and Opportunities for Sustainable Trade Policy”. International Institute for Sustainable Development, 2008


Wolfrum, Rüdiger; Stoll, Peter-Tobias; Koebele, Michael (eds.): WTO. Trade Remedies. Max Planck Commentaries on World Trade Law (2008)

WTO: World Trade Report 2006. Subsidies, Trade and the WTO.
