CEU
Instituto Universitario de Estudios Europeos
Universidad San Pablo

Centre for Competition Policy

Documento de Trabajo
Serie Política de la Competencia
Número 53 / 2016

EU Energy Taxation System & State Aid Control Critical Analysis from Competitiveness and Environmental Protection Objectives

Jerónimo Maíllo
Edoardo Traversa
Justo Corti
Alice Pirlot

CEU | Ediciones

Documento de Trabajo
Serie Política de la Competencia
Número 53 / 2016

EU energy taxation system & State aid control. Critical analysis from competitiveness and environmental protection objectives

Prof. Dr. Jerónimo Maillo, Prof. Dr. Edoardo Traversa, Prof. Dr. Justo Corti, Prof. Dr. Alice Pirlot

This document has been subjected to peer review. The scientific committee is composed of academic doctors from European universities and tax expert members of the he Institute of Fiscal Studies (Spain).

This work is part of the research project Energy taxation and State aid control: Looking for a better coordination and efficiency (ETSA-CE), coordinated by Prof. Dr. Marta Villar Ezcurra, Ref. 553321-EPP-1-2014-1-ES-EPPJMO-PROJECT.

It is also part of the research project "Fiscalidad de la energía: lucha contra el cambio climático versus competitividad", coordinated by Prof. Dr. Iñaki Bilbao Estada and Prof. Dr. Marta Villar Ezcurra, Ref: DER 2014-58191-P (Ministerio de Economía y Competitividad).

CEU | *Ediciones*

El Instituto Universitario de Estudios Europeos de la Universidad CEU San Pablo, Centro Europeo de Excelencia Jean Monnet, es un centro de investigación especializado en la integración europea y otros aspectos de las relaciones internacionales.

Los Documentos de Trabajo dan a conocer los proyectos de investigación originales realizados por los investigadores asociados del Instituto Universitario en los ámbitos histórico-cultural, jurídico-político y socioeconómico de la Unión Europea.

Las opiniones y juicios de los autores no son necesariamente compartidos por el Instituto Universitario de Estudios Europeos.

Los Documentos de Trabajo están también disponibles en: www.idee.ceu.es

Serie *Política de la Competencia* de Documentos de Trabajo del Instituto Universitario de Estudios Europeos

EU energy taxation system & State aid control. Critical analysis from competitiveness and environmental protection objectives

CEU *Ediciones*
Julián Romea 18, 28003 Madrid
www.ceuediciones.es

Instituto Universitario de Estudios Europeos
Avda. del Valle 21, 28003 Madrid
www.idee.ceu.es

ISBN: 978-84-16477-45-6
Depósito legal: M-37445-2016

Maquetación: Servicios Gráficos Kenaf s.l.

Table of contents

1. Introduction

This research inquires on the balance between two goals, competitiveness and environmental protection, and identify the contributions of the different legal instruments under examination to this balance, in particular, State aid instruments (GBER and Environmental Guidelines) in Section 2, the Energy Tax Directive (ETD) in Section 3, the Emissions Trade System (ETS) in Section 4 and Environmental Border Tax Adjustments (EBTAs) in Section 5.

Although certain flexibility has been given to the co-authors, this study mainly focuses on the following points:

(1) Balance between competitiveness and environmental protection in the different instruments under examination.

How these goals are defined? Which criteria are used for the balance? Is it a right balance? Should it be changed? Could it be improved? How? All in all, we intend to identify which is the contribution of each instrument to the achievement of these goals, assess how the balance is done and suggest and explain improvement proposals.

(2) Coordination with the other instruments

Which is the role of each instrument in the overall framework? Are there specific provisions or mechanisms to coordinate the different instruments? How are they designed? Which criteria and rules govern the interaction between the different instruments? Are they missing? Should they be included or reformed? How? Is there a good and harmonic mix of regulatory instruments? All in all we intend to understand the role and interaction between the different instruments in our topic, detect lack of coordination, and suggest improvements.

(3) Regulatory asymmetries intra-EU and extra-EU

To what extent the analysis reveals or allows regulatory asymmetries -e.g. discrimination- between different energy sources depending on their green character or between States regulation? Which are the limits to those asymmetries (limits to regulatory competition)? Which criteria are used to determine these limits?

Is there and adequate control of those asymmetries? Any improvement proposals?

2. The State Aid control instruments. The Balance between competitiveness, competition and environmental protection

State aid control of environmental tax reliefs requires a balance between different goals and values among which the most important ones may be competition and trade, environmental protection and, in an indirect way, competiveness of national and European industry. Here below these concepts will be explained in the context of the EU State Aid system before moving to the analysis of how the balance is made between them. Attention will also be given to detecting possible regulatory asymmetries and referring to coordination with other instruments.

2.1. Environmental protection

According to Article 107.1 of the Treaty on the Functioning of the European Union (hereinafter TFEU), State aids are prohibited unless an exception of Article 107, paragraphs 2 or 3 can be applied. In the latter paragraph, letter "c", it is stated that the Commission may consider compatible with the Common Market State aids that facilitate the development of certain economic activities in the EU provided that certain conditions are fulfilled. Among these activities, the Commission has included aids related to environmental protection and energy. In addition to individual decisions, the Commission has adopted two general acts that directly tackled this issue and are very relevant for our research: the General Block Exemption Regulation (hereinafter GBER), in particular Section 7 devoted to Aids for environmental protection[1], and the Guidelines on State aids regarding environmental protection and energy 2014-2020 (hereinafter EEAG)[2].

In both texts, there is a common definition of "environmental protection", in particular in article 2, paragraph 101 of the GBER and paragraph 19 (1) of the EEAG. Although the definitions are not exactly the same, their slight differences do not affect substance. Environmental protection is defined as "any action designed to remedy or prevent damage to physical surroundings or natural resources by a beneficiary's own activities, to reduce risk of such damage or to lead to a more efficient use of natural resources, including energy-saving measures and the use of renewable sources of energy". This is a very broad definition including measures addressed to, among others, the fight against climate change, sustainable and efficient use of energy and promotion of renewable energy sources. Furthermore, nowadays the term "environmental protection" should be considered into the context of the 2020 European Agenda and the goals in energy and climate contained in the so called 2030 Framework[3].

This research project mainly focuses on tax reliefs of an environmental tax[4] which is defined in Article 2, para. 119 of the GBER, as a" tax with a specific tax base that has a clear negative effect on the environment or which

---

1 See Enabling Regulation, Council Regulation (EC) No 1588/2015 of 13 July 2015 on the application of Articles 107 and 108 of the Treaty on the Functioning of the European Union to certain categories of horizontal State aid, OJ L 248, 24.9.2015, p. 1, article 1 (1), a, iii). (environmental protection); and Commission Regulation (EU) N°651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty (GBER),OJ L 187, 26.6.2014, p. 1 ,

2 Communication from the Commission — Guidelines on State aid for environmental protection and energy 2014-2020, OJ C 200, 28.6.2014, p. 1.

3 See EEAG, paras. 2 and 3.

4 For a detailed studied of this type of aid, see M. Kleis and P. Nicolaides, Fiscal State Aid and Environmental Protection: Analysis of a Conceptual and Practical Problem, TijdschriftvoorStaatssteun, 2008. For a more general study on tax incentives see, among others, C. Micheau, State Aid, Subsidy and Tax Incentives under EU and WTO Law, Kluwer Law International 2014.

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". The interpretation, problems and difficulties arising from this definition had already been dealt in another paper and discussed in a previous seminar of this research project[5]. Without a need to insist on that issue, I will focus on the contribution of a tax relief to environmental protection.

A tax relief or exemption of an environmental tax may contribute to an increase in the protection of the environment where the beneficiaries would otherwise be placed at such a competitive disadvantage that it would not be feasible to introduce the environmental tax in the first place[6] or where granting a more favourable tax treatment to some undertakings may facilitate a higher general level of environmental taxes[7]. Therefore, in order to prove the potential contribution of a tax reduction to a higher degree of environmental protection, we have to be convinced of:

- first, the need for State intervention, implying that a market failure is identified;

- second, appropriateness: the aid, as designed and proposed, is an appropriate policy instrument to increase environmental protection. Appropriateness comprises the existence of an incentive effect, that is to say that the aid changes the behaviour of the undertaking(s) concerned in such a way that it engages in additional activity which it would not carry out without the aid or which it would carry out in a restricted or different manner.

2.2. Competition, trade and competitiveness. Impact on regulatory asymmetries

Competition and competitiveness are two different although related concepts. In the economic field, competition refers to a rivalry scenario between firms (or other actors) to get the consumers' favour, whereas competitiveness refers to the ability of a firm (or another actor) to offer products or services at adequate prices and conditions as to obtain reasonable profits.

As it is well known, within the EU State aid control system, the focus of the balancing exercise is between, on the one hand, distortions of competition and trade and, on the other hand, other legitimate interests, among which environmental protection.

Competiveness of national and/or European industry might also be an 'indirect legitimate interest' (one may say that, as a general rule, it is more an expected outcome than a justification for the restriction). It is legitimate where it is achieved by more competition and by fostering a more dynamic economic environment and not through protectionist measures which will be detrimental to and very distortive of competition and trade. The logic behind is, and should be, that, as a point of departure, a competitive market is the best scenario for promoting the competitiveness of national and European operators and to prepare them to European and worldwide competition in the medium-long term.

---

5 M. Villar & P. Wegener, Energy taxation and key legal concepts in the EU State aid context: looking for a common understanding, Documentos de trabajo, SeriePolitica de la Competencia No 50/2015 (CEU Ediciones 2015).

6 EEAG, para. 167.

7 Ibidem, para. 168.

8 A regulatory asymmetry was recognised by the European Commission in the draft proposal for a reform of the ETD when it stated that one of the problems of the current ETD is that Member States can compensate differences in production costs by applying favourable tax treatment according to article 16 of the ETD. See OJ C 80/17, 7 March 2015.

However, as we have already explained above, competitiveness could be the reason why a reduction of an environmental tax contributes to an increase in environmental protection (making feasible the tax itself or facilitating a higher general taxation). Indeed the EU rules foresee that certain specific-sectors or industries which are energy-intensive (i.e. manufacturing of chemicals, paper, ceramics or metals) and where non-EU or worldwide competition is strong, are fields where a tax relief of an environmental tax maybe adequate and compatible with the Common Market because otherwise the Member States would not establish an environmental tax or would fix it at a much lower rate, a scenario which may be much worse for environmental protection. This logic may also be applicable to a more limited extent to intra-EU scenarios (inter Member States)[8]. In both cases, a distortion of competition and trade is likely but may be justifiable on the ultimate goal of environmental protection (and the instrumental or intermediate goal of competitiveness). Therefore, in these cases, there is a close link between environmental protection and competitiveness. If an increase (or maintenance) of the competitiveness of national or European industry is admissible is subject to the condition that otherwise environmental protection will be damaged. Caution should be taken to check that this link is true and exists in the cases under examination. Otherwise, we will be distorting competitive markets without due justification and therefore we will be going against the public interest[9]. Besides, it is important to remember that international and EU trade rules have to be respected and that the distortion needs to be balanced.

Moreover, a different but interesting issue is whether an aid (i.e. and environmental State aid) can be more beneficial in practice to more technological or environmentally-friendly techniques and operators than to traditional ones and could thus indirectly increase their competitiveness with regard to other operators who provide competing products or services from a consumers' perspective. Provided the level playing field is respected and conditions are objectively designed (and applied), there should be no objections to the system.

Regarding the notion of competition and trade and the corresponding concepts of distortions of competition and trade within the EU State aid system, it has to be reminded that the latter are necessary for an aid to exist.

A distortion of competition is assumed as soon as the State grants a financial advantage to an undertaking in a liberalized sector where there is, or could be, competition[10].This is so because the aid (tax exemption or tax relief) improves the competitive position of the recipient compared to other undertakings with which it competes[11] by relieving it of expenses (e.g. taxation) it would otherwise have had to bear[12]. Furthermore, as the effect does not need to be significant, even a low amount may be sufficient to create (or risk to create) a distortion of competition. Thus, the likelihood of fulfilling this requirement is very high[13].

Similarly, an effect on trade is also defined in very broad terms. Again any advantage granted to an undertaking in a market that is open to competition will normally affect trade, even if the recipient is not directly involved in cross border trade as the aid may make more difficult for operators in other markets to enter or to operate in that market[14]. It is true that for some activities with a purely local impact, a trade effect has been sometimes set aside but these cases are the exceptions that confirm the general rule[15].

---

9 Nicolaides argues that the justification for this exemption is often based on weak reasoning. See P. Nicolaides, *In search on economically rational environmental State aid: the case of exemption from environmental taxes*, European Competition Journal 2014, p. 164.

10 Joined Cases T-298/07, T-312/97 & others Alzetta [2000] ECR II-2325, paras. 141 to 147; Case C-280/00 *AltmarkTrans* [2003] ECR I-7747.

11 Case 730/79 *Phillip Morris* [1980] ECR 267, paragraph 11. Joined Cases T-298/07, T-312/97 & others, *Alzetta*[2000] ECR II-2325, para. 80.

12 Case C-172/03 *Heiser*[2005] ECR I-1627, para.55.

13 Case T-55/99 *CETL* [2000] ECR II-3207, para. 89. Case C-280/00 *Altmark Trans* [2003] ECR I- 7747, para. 81.

14 Case C-280/00 *Altmark Trans* [2003] ECR I-7747, para. 78.

15 For some examples of purely local impact aids and their common features, see Draft Notice, paras. 196-197.

It is also important to consider that while at the beginning the focus of EU State aid control was on avoiding discrimination against foreign producers and distortions of trade between Member States[16], the focus has progressively moved to detect unequal treatment between companies operating in the same Member State (more intra-State than inter-State situations). Nevertheless, the State aid law discipline maintains a hybrid nature, in between internal market and competition[17].

2.3. The balancing exercise. A right balance? Coordination with other instruments

Once we have defined and clarified the concepts of environmental protection and distortion of competition and trade, the next step of the analysis is to determine how to balance the negative effects of a State aid -distortion of competition and trade- with its positive aspects –increase in environmental protection-?

A distinction has to be made between tax reliefs covered by the GBER and those that have to be individually examined.

Regarding those covered by the block exemption, there is no need to do an individual balancing exercise -it is sufficient to check that the conditions therein established are fulfilled- It is presumed that the outcome of the balance is positive and therefore that the aid is compatible with the Common Market. However, it would be possible to critically examine the GBER, assessing whether it has taken the right option and therefore whether the presumption is well designed.

Article 44 of the GBER applies to aid in the form of reductions in environmental taxes under Directive 2003/96/EC (hereinafter ETD) and establishes that they should be exempted and deemed to be compatible with the Treaty provided the beneficiaries are selected on the basis of transparent and objective criteria and they pay at least the respective minimum level of taxation set by the ETD. According to Recital 64 of the GBER, this means that the aid should be granted in the same way for all competitors found to be in a similar factual situation. Moreover, the duration of the exemption is limited to the period of application of the GBER. There is therefore a coordination mechanism between the two set of rules: the ETD and the State aid rules.

Criticisms and de *lege ferenda* proposals are threefold:

First, we would like to remind that the notion of environmental tax has been said to be problematic (at least unless it is broadly interpreted). We refer to prior discussions within this research project[18].

Second, it has to be considered that certain tax reliefs may be granted to pursue other legitimate interests (i.e. social reasons). In those cases, the same limits should not be applicable, in particular the payment of at least the minimum level of taxation set by the ETD to benefit from the GBER privileged treatment.

---

16 See, for instance, Joined cases 6/69 and 11/69 *Commission v. France* [1969] ECR 709.

17 For supporters of maintaining State aid as an essential part of the internal market (free movement rationale), see J.L. Buendía& B. Smulders, "Time for some realism in EC State aid law", in *Liber Amicorum Francisco Santaolalla*, Kluwer, 2008; A. Biondi, "The rationale of State aid control: A return to orthodoxy", in *Cambridge Yearbook of European Legal Studies* [2011] 35.

18 M. Villar & P. Wegener, Energy taxation and key legal concepts in the EU State aid context: looking for a common understanding, Documentos de trabajo, SeriePolitica de la Competencia No 50/2015 (CEU Ediciones 2015).

Third, the tax relief is deemed compatible if the two simple conditions are fulfilled regardless of the characteristics of the market, the amount of the fiscal aid and without the need to respect any maximum threshold or cap of the aid. As the appropriateness of the aid and the incentive effect are automatically presumed, and the distortions of competition and trade might be very significant in some cases, it could be reasonable to subject the privileged treatment of the GBER to the respect of a specific maximum cap of aid or at least to require additional evidence and arguments on the expected intensity of the distortion and the incentive effect before granting the GBER coverage (sort of simplified notification)[19].

Regarding those tax reliefs which are not covered by the GBER, an individual assessment is normally necessary. In particular, this would be the case for, first, non-harmonized taxes and, second, for harmonized taxes whose payment is below the minimum level set by the ETD)[20].

The general criteria are common to those used to assess other State aids. In addition to the identification of a market failure, the appropriateness of the aid and its incentive effect[21], already mentioned above, the following criteria have to be followed:

a. The aid must be proportionate, in that there are not less restrictive means to achieve the same incentive effect and the amount of aid per beneficiary is limited to the "minimum needed" to achieve the objective. As a general rule, aid will be considered "limited to the minimum necessary" if the aid corresponds to the net extra costs incurred to meet the objective compared with the costs of the project the company would have carried out in the absence of any State benefit.

b. The aid must not adversely affect competition and trade between EU Member States. Any negative effect of the aid measure on competition between Member States must be limited and outweighed by its positive contribution towards a competitive, sustainable and secure energy system.

c. The aid must be transparent in that there must be easy access to all relevant acts and pertinent information about the awarded aid.

More specific criteria are given in the EAG to assess the necessity and proportionality in the case of tax reductions or exemption of environmental taxes.

Necessity requires complying with the following cumulative conditions:

a) The choice of beneficiaries is based on objective and transparent criteria, and the aid is granted, in principle, in the same way for all competitors where they are in a similar factual situation;

b) A regular environmental tax, without reduction, must lead to a substantial increase in production costs for each sector or category of individual beneficiaries;

---

19 See J. Englisch, Energytax incentives and the GBER regime, Documentos de trabajo Serie Politica de la Competencia No 51/2015 (CEU Ediciones 2015).

20 See paras. 175-180 EEAG, specially para. 175.

21 It is necessary that the aid encourages the company to change its behavior. It needs to be demonstrated that, without the aid, the company might not have done so, or it might have done so in a more restrictive or different way. However, the aid should not subsidise the costs of an activity that a company would incur in any event and should not compensate for the normal business risks of an economic activity.

c) The substantial increase in production costs cannot be passed on to customers without leading to important sales reductions.

On the other hand, proportionality requires that one of the following conditions is met:

a) Aid beneficiaries pay at least 20% of the national environmental tax; or

b) The tax reduction is conditional on the conclusion of agreements between the Member State and the beneficiaries or associations of beneficiaries whereby the beneficiaries or associations of beneficiaries commit themselves to achieve environmental protection objectives which have the same effect as specified on a) or if the circumstances established for Community harmonized taxes are met, if the Union minimum tax level were applied. Such agreements or commitments may relate, among other things, to a reduction in energy consumption, a reduction in emissions or any other environmental measure and must satisfy the following cumulative conditions:

i) The substance of the agreements must be negotiated by the Member State and must specify in particular the targets and fix a time schedule for reaching the targets;

ii) The Member State must ensure independent and timely monitoring of the commitments concluded in these agreements; and

iii) These agreements are revised periodically in the light of technological and other developments and stipulate effective penalty arrangements applicable if the commitments are not met[22].

Critiques may be focused on whether these specific conditions, which according to the EEAG seem to be sufficient to deem the aid compatible with the Treaty, guarantee the increase in environmental protection and the incentive effect.

The design of the necessity conditions does not seem to have a close relationship and causal link with these needed guarantees. Furthermore, the design of the proportionality condition leaves a large leeway to the Members States by establishing only a maximum reduction (80% of the regular environmental tax) regardless of the level of increase of environmental protection and incentive effect. Moreover, the EEAG uses some general concepts (i.e. "substantial increase in production costs" or "important sales reductions", "cost that cannot be passed to the consumers" "significant competitive disadvantage", "unsustainable financing of renewal support") without further elaboration or clarification and without establishing criteria -or even a need- to measure them. As Nicolaides argues, all this might mean that the aid –or that magnitude of aid- is not necessary or proportionate[23].

2.4. Concluding remarks and policy recommendations

First, environmental protection has been defined in very broad terms in the State aid control instruments. A tax relief or exemption of an environmental tax may contribute to an increase in the protection of the

[22] See paras. 177-178 EEAG.

[23] See P. Nicolaides, Critical analysis of reductions from Environmental taxes in the new guidelines on State aid for environmental protection and Energy, 2014-2020, *Energy & Environment* · Vol. 26, No. 4, 2015, pp. 573-596, and P. Nicolaides and M. Kleis, A Critical Analysis of Environmental Tax Reductions and Generation Adequacy Provisions in the EEEAG 2014-2020, 13European State Aid Law Quarterly 4 (2014),pp. 636-649.

environment where the beneficiaries would otherwise be placed at such a competitive disadvantage that it would not be feasible to introduce the environmental tax in the first place or where granting a more favourable tax treatment to some undertakings may facilitate a higher general level of environmental taxes. Evidence of this link includes the need to prove a market failure, appropriateness of the aid to remedy by the creation of an incentive to opt for a more environmental-friendly behavior. This evidence is not easy to prove and the reasoning on it is not always as strong and thorough full as it should be.

Second, competition and competitiveness are two different although related concepts. In State aid control of this type, the balance is made between, on the one hand, competition and trade and, on the other hand, environmental protection. However, competitiveness may also play a very important role. Competitiveness could be the reason why a reduction of an environmental tax contributes to an increase in environmental protection (making feasible the tax itself or facilitating a higher general taxation). Indeed the EU rules foresee that certain specific-sectors or industries which are energy-intensive (i.e. manufacturing of chemicals, paper, ceramics or metals) and where non-EU or worldwide competition is strong, are fields where a tax relief of an environmental tax maybe adequate and compatible with the Common Market because otherwise the Member States would not establish an environmental tax or would fix it at a much lower rate, a scenario which may be much worse for environmental protection. This logic may also be applicable to a more limited extent to intra-EU scenarios (inter Member States). In both cases, a distortion of competition and trade is likely but may be justifiable on the ultimate goal of environmental protection (and the instrumental or intermediate goal of competitiveness).

Third, when applying State aid control nowadays, it is important to consider that while at the beginning the focus was on avoiding discrimination against foreign producers and distortions of trade between Member States, the focus has progressively moved to detect unequal treatment between companies operating in the same Member State (more intra-State than inter-State situations). Nevertheless, the State aid law discipline maintains a hybrid nature, in between internal market and competition.

Fourth, regarding the GBER and tax reliefs of environmental taxes, although progress in the latter years is acknowledged, the following critiques and de *lege ferenda* proposals are put forward:

- First, I would like to remind that the notion of environmental tax has been said to be problematic (at least unless it is broadly interpreted). I refer to prior discussions within this research project.

- Second, it has to be considered that certain tax reliefs may be granted to pursue other legitimate interests (i.e. social reasons). In those cases, the same limits should not be applicable, in particular the payment of at least the minimum level of taxation set by the ETD to benefit from the GBER privileged treatment.

- Third, the tax relief is deemed compatible if the two simple conditions are fulfilled regardless of the characteristics of the market, the amount of the fiscal aid and without the need to respect any maximum threshold or cap of the aid. As the appropriateness of the aid and the incentive effect are automatically presumed, and the distortions of competition and trade might be very significant in some cases, it could be reasonable to subject the privileged treatment of the GBER to the respect of a specific maximum cap of aid or at least to require additional evidence and arguments on the expected intensity of the distortion and the incentive effect before granting the GBER coverage (sort of simplified notification).

Fifth, regarding the treatment established in the EEAG for individual assessment of cases not covered by the GBER, critiques may be focused on whether the specific conditions which according to the EEAG seem to be

sufficient to deem the aid compatible with the Treaty, guarantee the increase in environmental protection and the incentive effect.

The design of the necessity conditions in para. 177 of the EEAG does not seem to have a close relationship and causal link with these needed guarantees. Furthermore, the design of the proportionality condition in para. 178 of the EEAG leaves a large leeway to the Members States by establishing only a maximum reduction (80% of the regular environmental tax) regardless of the level of increase of environmental protection and incentive effect. Moreover, the EEAG uses some general concepts (i.e. "substantial increase in production costs" or "important sales reductions", "cost that cannot be passed to the consumers", "significant competitive disadvantage", "unsustainable financing of renewal support";) without further elaboration or clarification and without establishing criteria -or even a need- to measure them.

3. The Energy Tax Directive

3.1. Balance between competitiveness and environmental protection

As such, the primary objective of the ETD was not to pursue environmental goals.

The original and main purpose of the directive was to drive harmonisation in the field of excise duties on energy products[24]. When, in 1997, the Commission proposed to restructure energy taxation in the EU, harmonisation was considered necessary to reinforce the "unity of the single market and the liberalisation of the energy markets, in particular in the fields of natural gas and electricity"[25]. Moreover, the Commission considered that "the non-harmonisation of national rates for the taxation of energy products (…) leads to distortions due to excessive tax competition"[26]. In other words, the ETD aimed to avoid tax competition between Member States but also related effects on employment, firms' location and consumption patterns.

The Commission also explicitly refers to the need to preserve the "competitiveness of European firms vis-à-vis third countries"[27].

The Commission nevertheless recognised that Member States should be given "sufficient freedom" to adopt CO2/energy taxes:

> "It proposes for example that the Member States may differentiate, without prior authorisation if they comply with the Community minimum levels, the rates of taxation applicable to a product on the basis of environmental standards, or that the Member States be authorised to apply reduced rates or exemptions from tax to certain products or uses (…)"[28].

---

[24] This can be derived from the proposal of the Commission (Commission of the European Communities, Proposal for a Council Directive restructuring the Community framework for the taxation of energy products, Brussels, 12 March 1997, COM(97)30 final, 97/0111(CNS).

[25] *Ibid.*,3.

[26] *Ibid.*

[27] *Ibid.*,7-8. See, article 17, para 1(a) of Directive 2003/96/EC (concerning tax reductions in favour of "energy-intensive business").

[28] *Ibid.*,3-4 & 7. See also the references to "the competitiveness of Community businesses in the international framework" and "the risks of a loss of international competitiveness" in recitals 8 & 28 of Directive 2003/96/EC.

Consequently, the ETD directive contains explicit references to "environmental considerations"[29].

Despite these explicit references, the ETD does not consistently help pursuing environmental (and, in particular, climate) objectives. Minimum tax rates, exemption cases, exceptions specific to Member States do not always consistently follow an 'environmental' logic. For example, minimum rates are not defined by taking into account the emissions intensity of energy products. Consequently, higher taxes may be imposed – counterintuitively - on renewable energy sources than on fossil fuels[30].

The proposal of revised directive aimed to reinforce the environmental character of the directive[31]. For example, the Commission proposed to introduce an "additional uniform CO2-related tax" on energy products falling under the ETD[32]. The proposition of revision has unfortunately been withdrawn in 2015[33].

The 'light' environmental character of the ETD directive may, nevertheless, slightly be reinforced by Directive 2012/27/EU on energy efficiency[34]. This directive imposes Member states to set up energy efficiency obligation scheme. Under these scheme, "energy savings from taxation measures" should only be considered for energy savings "exceeding the minimum levels of taxation applicable to fuels as required in Council Directive 2003/96/EC"[35].

3.2. Coordination with the other instruments

3.2.1. Absence of clear coordination between the ETD and the EU ETS

An opinion of the European Economic and Social Committee from 2012 makes clear that the proposal to revise the ETD aimed to correct the "inadequate coordination between the ETD and the EU ETS on CO2 emissions [that] results in double taxation or absence of taxation, depending on the sectors"[36]. The proposal of revised directive – which, as already mentioned, has been abandoned - provided for a better coordination between the ETD and the EU ETS. For example, large plants falling under the EU ETS using electricity would be exempted from the ETD (no CO2 would apply on these electricity producers). Similarly, energy products used by sectors falling under the EU ETS would be exempted under the ETD[37].

---

29 See recitals 6, 11, 12, 25, 28, 29 of Directive 2003/96/EC. See also the references in articles 15 && 17 of Directive 2003/96/EC.

30 European Commission, Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, Brussels, 13 April 2011? COM(2011) 169 final, 2011/0092 (CNS), p. 3.

31 European Commission, Proposal for a Council Directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity, Brussels, 13 April 2011? COM(2011) 169 final, 2011/0092 (CNS).

32 *Ibid.*,5.

33 Withdrawal of Commission proposals, 2015/C 80/08, O.J.E.U., 7 March 2015, C 80/17.

34 Directive 2012/27/EU of the European Parliament and of the Council of 25 October 2012 on energy efficiency, amending Directives 2009/125/EC and 2010/30/EU and repealing Directives 2004/8/EC and 2006/32/EC, O.J.E.U., 14 November 2012, L 315.

35 *Ibid.*,Annex V, point 3 (a).

36 Opinion of the European Economic and Social Committee on the 'Proposal for a Council directive amending Directive 2003/96/EC restructuring the Community framework for the taxation of energy products and electricity' COM(2011)169 final – 2011/0092 (CNS) and the 'Communication from the Commission to the European Parliament, the Council and the European Economic and Social Committee on Smarter energy taxation for the EU : proposal for a revision of the Energy Taxation Directive' COM(2011) 168 final, J.O.U.E., 28 January 2011, C 24, point 3.3.

37 Opinion of the European Economic and Social Committee, *op. cit.*, points 4.1.8, 4.1.9, 5.1.2.

3.2.2. De facto coordination with BTAs

The ETD is a practical example of 'direct' BTAs: both 'domestic' and 'imported' energy products are subject to the tax. However, the directive does not provide for more complex BTAs. For example, the directive does not impose taxes on 'imported products for which a large quantity of energy has been used in the production processes' (such taxes could be imposed in proportion to the quantity of energy that has been used in the production). Instead, in order to guarantee the competitiveness of European producers, the directive provides for the possibility to "apply tax reductions on the consumption of energy products in favour of energy-intensive business[38].

3.2.3. Explicit reference to state aids

The ETD explicitly mentions the case where the tax system of a Member State related to the ETD would constitute state aid. Article 26, para. 2 states as follows:

> "Measures such as tax exemptions, tax reductions, tax differentiation and tax refunds within the meaning of this Directive might constitute State aid and in those cases have to be notified to the Commission pursuant to Article 88(3) of the Treaty [now 108, para 3 of the TFEU]. Information provided to the Commission on the basis of this Directive does not free Member States from the notification obligation pursuant to Article 88(3) of the Treaty"[39].

In its 2014 Communication on state aid for environmental protection and energy, the Commission also explicitly refers to the ETD[40]. It states as follows:

> "When environmental taxes are harmonized, the Commission can apply a simplified approach to assess the necessity and proportionality of the aid. In the context of Directive 2003/96/EC ('ETD), the Commission can apply a simplified approach for tax reductions respecting the Union minimum tax level. For all other environmental taxes, an in depth assessment of the necessity and proportionality of the aid is needed"[41].

3.3. Regulatory asymmetries intra-EU and extra-EU

The principle of excise duties is that excises apply indistinctively to 'imported' and 'domestic' energy sources. From this perspective, Member States cannot distinguish between energy sources according to the country from which they are being imported.

The ETD sets tax minima, which Member States should respect. Aside these requirements, Member States are free to distinguish between different energy sources. For example, some Member States have adopted additional carbon taxes up to their excise taxes on the energy sources mentioned in the ETD.

Harmonization at the EU level could benefit all EU Member States by setting up general guidelines as to how differentiated taxes should be imposed on energy sources based on environmental considerations.

---

38 Article 17 of Directive 2003/96/EC.

39 Article 26 Directive 2003/96/EC.

40 Commission of the European Union, Communication – Guidelines on State aid for environmental protection and energy 2014-2020, J.O.U.E., 28 June 2014, C 200, p. 1-55.

41 *Ibid.*,para 172.

4. The Emission Trade System

4.1. Introduction

The impact of the European Union Emission Trading System (EU ETS) on competitiveness is a worrying issue for industrial sectors in Europe. When it was established in 2005 it was said that the price for carbon emissions created by the ETS could affect cost structure, and therefore competitiveness with foreign imports. The main concern was that it could produce emissions leakage and delocalization of industries, with the corresponding impact on jobs and domestic production.

In order to corroborate these initial threats it is necessary to size the real impact of the EU ETS. Altogether the EU ETS covers around 45% of total greenhouse gas emissions from the 28 EU countries. The focus of the EU ETS is on emissions which can be measured, reported and verified with a high level of accuracy. The system covers emissions of carbon dioxide (CO2) from power plants, a wide range of energy-intensive industry sectors (including oil refineries, steel works and production of iron, aluminum, metals, cement, lime, glass, ceramics, pulp, paper, cardboard, acids and bulk organic chemicals) and commercial airlines (only for intra-EU flights). Road Transport (25% of emissions) is not included in the EU ETS[42].

Consequently, we can identify two main impacts on the competitiveness of the EU economy. On the one hand, a general impact on electricity prices which, depending on the configuration of the electricity mix and the pass-through effect, could be distributed among all the economic actors. Secondly, a more concentrated impact on certain energy-intensive industry sectors included in the EU ETS.

However there is another important aspect to be taken into account for measuring the impact on competitiveness. The EU ETS included an initial allocation of permits which, of course, reduced its impact. In phases I and II countries were called upon to draw up National Allocation Plans that both fixed the national cap and determined the sectoral allocation. Free allowances were granted to new entrants whereas the allowances of existing facilities were revoked and cancelled. Nevertheless, for trading phase III, beginning in 2013, Directive 2009/29/EC relegates the allocation of free emission allowances from national governments to Brussels and stipulates a harmonized allocation scheme to reduce competitive distortions (benchmarking system)[43].This will increase the negative effect on EU competitiveness or, at least, it will reduce the possibilities of mitigating the impact at national level.

Finally, pass-through effect, which means that carbon prices on production could be transmitted to consumers, having a general impact on the competitiveness of the whole economy[44]. Pass-through could be

---

[42] According to the European Commission, road transport sector is responsible of 25% of CO2 emissions. They are not covered by ETS but there are mandatory emission performance standards for new passenger cars and new light commercial vehicles introduced by Regulations 443/2009 and 510/2011. See Regulation (EC) No 443/2009 of the European Parliament and of the Council of 23 April 2009 setting emission performance standards for new passenger cars as part of the Community's integrated approach to reduce CO 2 emissions from light-duty vehicles. OJ L 140, 5.6.2009, p. 1–15; Regulation (EU) No 510/2011 of the European Parliament and of the Council of 11 May 2011 setting emission performance standards for new light commercial vehicles as part of the Union's integrated approach to reduce CO 2 emissions from light-duty vehicles. OJ L 145, 31.5.2011, p. 1–18. There are, however, initiatives in order to include road transport sector in the EU ETS. See Achtnicht, M., von Graevenitz, K., Koesler, S., Löschel, A., Schoeman, B., Reaños, T., & Angel, M. "Including Road Transport in the EU-ETS–An alternative for the future". *Centre for European Economic Research (ZEW)Report*, 2015.

[43] Commission Decision 2011/87/EU of 27 April 2011 determining transitional Union-wide rules for harmonised free allocation of emission allowances pursuant to Article 10a of Directive 2003/87/EC of the Parliament and of the Council. This decision stipulates that free allocation be based on product benchmarks to the extent possible. A product benchmark is defined as the average greenhouse gas emission performance of the 10% best performing installations in the EU producing that product, measured in tons of CO2 equivalent per unit of output.

[44] Ekins P., and S. Speck, "Impact on competitiveness: what do we know from modelling?", in Milne. J.E. and M. S. Andersen (eds.) *Handbook of Research on Environmental Taxation*, Edward Elgar Publishing Limited, Cheltenham/Massachusetts, 2012.

essential not only to measure the impact on competitiveness but also to analyze the wish of companies to move forward greener technologies, which is one of the goals of the EU ETS system.

4.2. Impact on competitiveness related to electricity prices

The impact of the EU ETS into the European economy might differ depending on the possibility to pass-through carbon prices to consumers. While the manufacturing sector is typically relatively open to international trade and thus exposed to international competition, the power market is highly concentrated and less exposed to international competition since it is selling mostly to local markets[45]. In Spain the average pass-through in electricity market is above 80% (100% on high-demand hours)[46]. Due to the lack of real EU electricity market, the effect is similar in other EU countries[47].

However, dynamic effects of carbon prices may cause firms to discover and implement cost-effective energy efficiency measures to move them closer to the efficiency frontier. Since innovation could take some time, it is necessary to distinguish between long and short term impact.

Of course, that electricity intensive consumers are more affected than those using less electricity, however when the impact rises and it becomes harmful for the competitiveness of the company, they normally change the source of energy switching from electricity to gas[48]. Some studies have tried to determine an average competitiveness impact of the increase of energy prices, which could be fixed in 0.1 to 0.2% of import augmentation for each 1% of energy prices growth[49].

4.3. Impact on competitiveness of energy-intensive industrial sectors

According to Johanna Arlinghaus[50], who has made a literature review to estimate a causal relation between carbon prices, emission reductions and competitiveness effects on energy-intensive industrial sectors after introduction of the EU ETS, it is not possible to find a causal relation between carbon pricing and competitiveness.

One of the reasons for explaining this phenomenon are the exemptions, reductions and rebates that member states have introduced in order to maintain competitiveness. However, last studies[51] conclude that reduced rates and exemptions are not always necessary to maintain the competitiveness of firms affected by the policy.

---

45 Veith, S., J.R. Werner and J. Zimmermann, "Capital market response to emission rights returns: Evidence from the European power sector", *Energy Economics*, 31 (2009) 605-613.

46 Fabra, N. and M. Reguant, "Pass-through of emissions costs in electricity markets", *NBER Working Paper 19613*, National Bureau of Economic Research, Massachusetts, 2013.

47 Mokinski, F. and N. Woelfing, "The effect of regulatory scrutiny: Asymmetric cost pass-through in power wholesale and its end", *Journal of Regulatory Economics* 45 (2014) 175 – 193. Kirat, D. and I. Ahamada, "The impact of the European Union emission trading scheme on the electricity-generation sector", *Energy Economics* 22 (2011) 995-1003.

48 Flues F, and B.J. Lutz."Competitiveness Impacts of the German Electricity Tax." OECD Environment Working Papers No. 88, 2015.

49 Sato, M. and A. Dechezleprêtre, "Asymmetric industrial energy prices and international trade", *Working Paper*, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, 2013.

50 Arlinghaus, J. "Impacts of Carbon Prices on Indicators of Competitiveness." *OECD Environment Working Papers* No. 87, 2015.

51 Martin, R., L. dePreux and U. Wagner "The impacts of a carbon tax on manufacturing: Evidence from microdata", *Journal of Public Economics* 117 (2014), 1-14.

Pass-through also happens in manufactory sectors, but in a different scale rather than in electricity. In those sectors with high market concentration of the market like iron, steel and refineries pass-through could achieve 100%[52], however for chemicals (50%), glass (25%) and ceramics (30%) it is much lower[53].

Even if it could occur, the reduction of competitiveness in one particular sector cannot reduce the competitiveness of the economy as a whole. The competitiveness of a whole economy depends on a range of structural factors including the macroeconomic environment, commercial framework, openness to trade and investment, labor skills, ability to innovate and labor market regulation[54]. The ability to innovate (Porter hypothesis) could play a key role in the compensation of EU ETS costs and the increase of competitiveness of European economy. Last studies show that ETS sectors are more likely to innovate than non-ETS sectors[55].

4.4. "Energy efficiency" and "Environmental Innovation": A balance for competitiveness and environmental protection

Environmental regulation is an important driving force together with technology push, market pull and firm-specific factors[56]. Analyzing the Italian Community Innovation Survey, Borghesi *et al.* have concluded that there is a high correlation between the EU-ETS and environmental innovation[57].

Innovation impact could differ depending on the sector. The high pass-through in the electricity sector has reduced the innovation effect of the EU-ETS as it has demonstrated Hoffman analyzing the German power plant sector[58]. According to Roggeand Hoffmann the EU-ETS only has discouraged the new implementation of large-sized coal-based power generation plants[59].

However large sample and cross-sector studies say that firms subject to the EU ETS have been more innovative than unregulated firms[60]. Nevertheless, this impulse have not been enough to foster a technological change, according to environment related patents production[61].

Regarding energy efficiency, Martin et al.[62] evaluating the UK Climate Change Levy have found little effects on competitiveness but high impact on energy efficiency. According to this study, the companies included have reduced electricity use by 22.6%, which translates to a decrease in carbon emissions by between 8.4% and 22.4%.

---

52 De Bruyn, S., et al., "Does the energy intensive industry obtain windfall profits through the EU ETS? An econometric analysis for products from the refineries, iron and steel and chemical sectors", CE Delft, Delft, 2010.

53 Oberndorfer, U., V. Alexeeva-Talebi and A. Loeschel, "Understanding the competitiveness implications of future phases of EU ETS on the industrial sectors", *ZEW Discussion Papers* No. 10- 044, ZEW, Mannheim, 2010.

54 Adams, J., "Environmental Policy and Competitiveness in a Globalised Economy: Conceptual Issues and a Review of the Empirical Evidence", in OECD *Globalisation and Environment – Preliminary Perspectives*, OECD Proceedings, OECD, Paris, 1997.

55 Borghesi S., G. Cainelliand M. Mazzanti "Linking emission trading to environmental innovation: evidence from the Italian manufacturing industry" *Sustainability Environmental Economics and Dynamics Studies*, Working Paper Series 27/2014.

56 Rennings, K., Rexhauser, S., "Long-Term Impacts of Environmental Policy and Eco-Innovative Activities of Firms", *International Journal of Technology, Policy and Management*, 11 (3/4), 2011, pp. 274-290.

57 Borghesi, S., Cainelli, G., &Mazzanti, M. "Linking emission trading to environmental innovation: evidence from the Italian manufacturing industry". *Research Policy*, 44(3), 2015, pp. 669-683.

58 Hoffmann, V.H., "EU ETS and Investment Decisions: The Case of the German Electricity Industry". *European Management Journal* 25 (6), 2007, pp. 464–474.

59 Rogge K., Hoffmann V., "The impact of the EU Emission trading system on the sectoral innovation system of power generation technologies: findings for Germany", Energy Policy, 38, 2010, pp. 7639-52.

60 Calel R., Dechezlepretre A., "Environmental policy and directedtechnological change: evidence from the European carbon market", Working PaperFEEM, Milan, n. 22 2012.

61 Borghesi, S., Cainelli, G., andMazzanti, M. "Linking emission trading to environmental innovation: evidence from the Italian manufacturing industry". *Research Policy*, 44(3), 2015, pp. 669-683.

62 Martin, R., L. dePreux and U. Wagner "The impacts of a carbon tax on manufacturing: Evidence from microdata", *Journal of Public Economics* 117 (2014), 1-14.

4.5. Coordination with other environmental instruments: EU ETS as an element of an environmental tax system

It must be said that the price signal of the EU ETS could not be defined as a tax. Taxes are compulsory and unrequited revenue-raising fiscal policy instruments[63]. On the contrary, the purchase of an emissions certificate is linked to a "right to pollute" which could be a cost or revenue depending on the behavior of the company. Moreover ETS rights have a volatile price, being then more difficult to predict rather than a carbon tax. However, taking into account the practice and effects in the competitiveness of companies, both instruments could be taken as environmental costs and, consequently, they should be coordinated.

The positive effects of ETS on carbon reduction are not discussed. Emissions reductions were estimated close to 3% (210 million tons of CO2) higher for firms participating in the EU ETS than for firms which did not participate[64]. On the other hand, sometime it is difficult to articulate the ETS with other tax instruments for avoiding overlapping and negative effects on competitiveness. In case that carbon and energy taxes are introduced as part of a comprehensive environmental tax package, the impact on competitiveness could be neutral. However in that case, depending on which other taxes are reduced in order to compensate the increase of carbon taxes, the effects could differ among sector. For example, if it is decided to reduce social security contributions, labour-intensive firms could be in a better position than energy-intensive ones.

4.6. Regulatory asymmetries intra-EU and extra-EU: "carbon leakage"

Without trade, carbon pricing produces incentives for efficiency improvements and innovation towards lower carbon economy. However, in an open economy, carbon prices could lead to delocalization of carbon-intensive production to less-regulated countries[65]. Climate change policies may not reduce pollution but just redistribute it ("carbon leakage")

Carbon leakage is an important issue in the literature, but it is difficult to achieve general conclusions about it since, depending on market structures and level of competition, some openness could be positive for the functioning of the EU-ETS system. In an oligopolistic market (like petrol or electricity) some international competition could reduce pass-through of carbon prices which could be compensated by other ways, for example efficiency or environmental innovation. It's true that in mature manufacture sectors where competition is very high, regulatory asymmetries could represent a challenge for the industry. On the contrary, current studies have not demonstrated a direct relation between carbon pricing and delocalization[66], probably because current prices are not very high in comparison with other regulatory factors like labour/social security costs or general taxes.

Moreover, contrary to its initial plan, in 2009 the European Commission decided to extend free permit allocation for industries having a risk of carbon leakage (giving a 100% reduction) because they were carbon intensive or very trade exposed[67]. There is no empirical evidence that these exemption criteria are related to

---

63 OECD "Glossary of statistical terms – Environmentally related taxes", 2004 https://stats.oecd.org/glossary/detail.asp?ID=6270.

64 See Martin, Ralf and Muûls, Mirabelle and Wagner, Ulrich J., "The Impact of the EU ETS on Regulated Firms: What is the Evidence after Nine Years?" November 21, 2014. Available at SSRN: http://ssrn.com/abstract=2344376 or http://dx.doi.org/10.2139/ssrn.2344376

65 Condon, M. and A. Ignaciuk "Border Carbon Adjustment and International Trade: A Literature Review", *OECD Trade and Environment Working Papers*, 2013/06, OECD Publishing, 2013.

66 Martin, R., L. dePreux and U. Wagner "The impacts of a carbon tax on manufacturing: Evidence from microdata", *Journal of Public Economics* 117 (2014), 1-14.

67 Commission Decision 2010/2/EU determining, pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a list of sectors and subsectors which are deemed to be exposed to a significant risk of carbon leakage (2010) OJ L 1/10.

actual relocation or downsizing risk[68]. In fact there is substantial variation in the reported vulnerability between sectors as well as individual firms which indicates that the EU's approach of exempting entire industries may not be efficient[69].

4.7. Concluding remarks and recommendations

A) It is not clear that the EU ETS has had a negative effect on the European competitiveness. However the current design includes too many exceptions, particularly in energy intensive sectors, which prevent on negative effects on competitiveness but also reduce the impact on the main goals of the system (reduction of CO2 emissions).

B) In order to resolve this problem, we recommend changing the current strategy of general sectoral exceptions to a case by case one. In this individual analysis it would be necessary to take into account not only the risk of delocalization and the loss of jobs, but also other factors like the structure of the market and the openness of the sector to international competition.

C) There should not be exceptions to sectors with little competition since they normally pass-through implementation costs to consumers and do not invest in innovation. Power plants sector is a clear example of this malfunction of the EU ETS.

D) It is also important to include EU ETS into a general strategy environmental tax system. According to the literature there is some overlapping between the exceptions on EU ETS and other kind of environmental tax benefits. In fact, since some EU ETS exceptions are related to competitiveness (mainly for protecting economic activities and jobs), it should be advisable to analyze the opportunity of them, always in an individual assessment, taking into account all tax and social benefits and any other state aid that the company is enjoying.

5. Environmental Border Tax Adjustments (EBTASs)

5.1. Between competitiveness and environmental protection

- EBTAs are supposed to achieve three main objectives.

Authors usually consider that EBTAs may play a threefold role[70]. First, EBTAs are supposed to help limiting the risks to competitiveness related to the adoption of unilateral environmental policies. Second, EBTAs are supposed to play an environmental role by limiting the risks of 'pollution haven'. If EBTAs serve to limit the

[68] Martin, Ralf, et al. "Industry compensation under relocation risk: A firm-level analysis of the EU emissions trading scheme" National Bureau of Economic Research No. w19097, 2013.

[69] *Ibidem.*

[70] See e.g. Aaron Cosbey, Susanne Droege, Carolyn Fischer, Julia Reinaud, John Stephenson, Lutz Weischer& Peter Wooders, "A Guide for the Concerned: Guidance on the elaboration and implementation of border carbon adjustment" (2012) 03 Entwined Policy report, 8.

risks that national (polluting) enterprises relocate in countries without environmental protection policies, the positive effect on environmental protection would be guaranteed. Third, EBTAs are supposed to be a diplomatic tool in order to put pressure on non-participating countries. From this perspective, if EBTAs truly help encouraging third countries to participate in global environmental agreements, EBTAs will also play a positive role in the protection of the environment. At the same time, the more countries will be involved in the fight against global environmental challenges, the smaller the risks for competitiveness.

The objectives related to competitiveness and 'pollution haven' are based on economic assumptions on which no consensus exists in the economic literature. In other words, economists disagree on the economic relevance to adopt or not EBTAs.

- The balance between the objectives of environmental protection and competitiveness is achieved by the specific design of BTAs.

BTAs are defined as follows:

> "any fiscal measures which put into effect, in whole or in part, the destination principle (i.e. which enable exported products to be relieved of some or all of the tax charged in the exporting country in respect of similar domestic products sold to consumers on the home market and which enable imported products sold to consumers to be charged with some or all of the tax charged in the importing country in respect of similar domestic products)"[71].

In other words, BTAs on imported products are supposed to reflect the domestic environmental taxes imposed on domestically produced goods. WTO law provisions surrounding BTAs on imports – namely articles II:2(a) and III:2 of the GATT - translate the same idea. BTAs' design should guarantee that these taxes are not used to impose heavier taxes on imported products than the ones imposed on domestic products. **In other words, the so-called objective of competitiveness should not be transformed in protectionism.**

In political calls in favour of EBTAs, this design based on WTO law provisions surrounding BTAs is often disregarded. Indeed, proposals in favour of EBTAs sometimes seem to aim at equalizing the differences in level of environmental protection between countries. Such objective cannot be achieved through EBTAs. EBTAs only allow a country to impose (environmental) taxes both on domestic and imported products. The objective is to level the playing field between domestic and imported products in light of the taxes imposed on domestic products (and not in light of the fact that imported products have not been subject to taxes in the exporting country).

As such, BTAs do not aim at achieving environmental objectives. Although WTO law does not forbid that BTAs are used to foster environmental goals, countries have no obligation to take into account principles of environmental law – such as the polluter-pays-principle - in the design of their BTAs. For example, in the *Superfund* case, the Panel stated as follows:

> "(…) 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"[72].

---

[71] OECD, Border Tax Adjustments and Tax Structures in OECD Member Countries, 1968, 16, para. 6.

[72] GATT, Panel Report, United States – Taxes on Petroleum and Certain Imported Substances, 17 June 1987, para.5.2.5.

Consequently, when EBTAs on imports are based on BTAs' traditional legal grounds (namely articles II:2(a) and III:2 of the GATT), WTO law does not put strict limits on how the environmental goals should be defined. The requirements of GATT article II:2(a) and III:2 of the GATT only concern the relationship between the tax imposed on domestic and imported products. *De facto*, these requirements may have an impact on the freedom of countries to adopt differentiated taxes based on environmental considerations. Indeed, controversies exist as to the interpretation of WTO law with regard to the possibility of country for imposing different taxes on products based on environmental considerations. In particular, it is not clear whether a country may impose a heavier tax on a product because this product has been produced in a polluting way[73].

- The balance between environmental objectives and competitiveness-related objectives is intrinsically based on political considerations.

David Ricardo is usually considered the historical father of BTAs. Ricardo considered that such 'tax adjustments' where needed in order to guarantee that trade takes place according to the theory of the comparative advantage. Roughly speaking, if domestic products are taxed, then exported products should be exempted from taxation and imported products should be taxed. Domestic taxes should not influence the way international trade takes place between countries. From this perspective, EBTAs are always (primarily) grounded on an economic rationale.

Depending on their design, BTAs may more or less foster environmental objectives in addition to their economic rationale. For example, BTAs fully based on an economic rationale would a priori require that BTAs be applied both on imports (with the adoption of taxes on imported products) and on exports (with the adoption of exceptions for exported products). In the hypothesis where the environmental objective would prevail, BTAs should better be limited on the import side: the exemption of exported products would less easily be justified, taking into account that such exemption would make it impossible to internalise environmental costs as far as exported products are concerned. The exemption of exports could however be justified by reference to the need to limit the risk of creation of pollution haven.

As mentioned *supra*, it should be noted that BTAs are not an appropriate legal instrument in order to sanction countries that do not participate in environmental agreements.

- Proposals in favour of EBTAs' should take into account the balance between economic and environmental objectives imposed by the design of and the legal framework surrounding BTAs.

If EBTAs are not a satisfactory legal instrument to pursue the hoped-for political objectives, other trade-related measures should be considered. Indeed, instruments such as tariffs, countervailing duties, bilateral trade agreements, etc. could better fit the political objectives of sanctioning non-participating countries or compensating for differences in environmental policies between countries.

[73] In the literature, reference is made to "Process-and-Production Methods" (PPMs).

5.2. EBTAs and their coordination with other fiscal instruments

- BTAs are seen as one option in order to reduce the risks that could derive from the unilateral adoption of (stricter) environmental policies.

The role of EBTAs is to be explained by countries' fears for the negative consequences that could derive from the adoption of unilateral environmental policies. For this reason, countries are not encouraged to adopt unilateral (more) protective environmental policies without taking into account these potential negative effects. EBTAs are part of the instruments used to mitigate these effects. Other instruments include exemption regimes, subsidies and preferential measures (such as the free allocation of emissions allowances under the EU ETS).

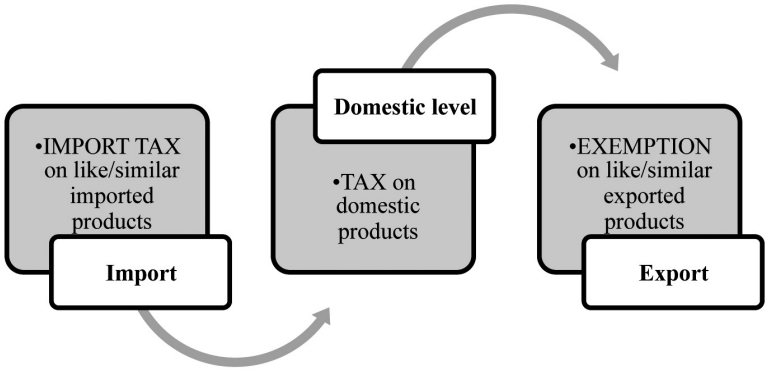
- BTAs' legal framework indirectly regulates the adoption of BTAs in relation to other (fiscal) instruments.

WTO law only permits the adoption of BTAs in respect of domestic taxes on 'like' or 'directly competitive or substitutable' products (GATT articles II:2(a) and III:2; Note ad Article III:2). In other words, in the case where risks related to competitiveness or 'pollution havens' are solved through the adoption of tax exemptions or preferential regimes, which remove the tax burden on domestic products, WTO law does not allow for the adoption of BTAs on 'like' or 'directly competitive or substitutable' imported products.

The EU ETS directive also indirectly refers to the relationship between adjustments mechanisms and other (fiscal) instruments aimed at limiting the risks to competitiveness and 'carbon leakage'. Article 10b of Directive 2003/97/EC lists, among the "measures to support certain energy-intensive industries in the event of carbon leakage", the "adjustment of the proportion of allowances received free of charge by those sectors or subsectors under Article 10a" and the "inclusion in the Community scheme of importers of products which are produced by the sectors or subsectors determined in accordance with Article 10a"[74].

- BTAs are designed in light of domestic taxes imposed on domestically produced goods ('mirror effect')

BTAs' legal framework indirectly defines BTAs' design. BTAs' design can be explained by the scheme below:



The import tax and the exemption should be designed taking into account how 'like' and 'directly competitive or substitutable' products are taxed at the domestic level.

[74] At the EU level, see also the reference to "border carbon tax adjustments" in the Opinion of the European Economic and Social Committee on The Paris Protocol – A blueprint for tackling global climate change beyond 2020, Brussels, 2 July 2015, COM(2015) 81 final, para. 5.14-5.15.

5.3. Regulatory asymmetries intra-EU and extra-EU

- The possibility to distinguish between 'similar' products is subject to much discussion under international trade law.

Under WTO law: The orthodox views are that WTO law only permits to differentiate between products, taking into account their "physical characteristics and end-uses", "consumer tastes and preferences", and "tariff classifications". In other words, it is usually considered that WTO law forbids distinguishing between products on the basis of policy-based considerations, in particular on the basis of how a product has been processed/produced (the so-called differentiations based on PPMs by reference to 'process and production methods'). Few authors have expressed their disagreements against this common interpretation of WTO law[75]. The interpretation of WTO law as prohibiting any type of regulatory distinction based on PPMs is a problem as far as environmental taxes are concerned. Indeed, it makes sense, from an environmental viewpoint, to distinguish between products based on how they are produced. For example, it would be relevant to impose higher taxes on products for which a great amount of CO2 emissions has been released during the production process.

Under EU law: It is generally considered to be 'easier' to differentiate between products. For example, in the case *Outokumpu Oy* case, the legal issue did not directly relate as to whether electricity could be differentiated on the basis of how it had been produced but focused on the fact that the differentiation was discriminatory against imported electricity[76].

5.4. Conclusions & Policy recommendations

The main recommendations to policy-makers are the following:

(a) Assessing the (economic & political) need and goals for EBTAs before proposing such measures;

(b) Assessing whether other legal instruments would not better meet the goals supposed to be pursued by EBTAs;

(c) Defining the design of EBTAs in detail (which taxes, on which (domestic & imported) products, on the basis of which environmental factors, etc.);

(d) On the basis of EBTAs' design, determining the risks of incompatibility with WTO/EU law.

[75] See e.g. Robert Howse& Donald Regan, "The Product/Process Distinction – An Illusory Basis for Disciplining 'Unilateralism' in Trade Policy" (2000) 11(2) European Journal of International Law 249.

[76] CJEU, *Outokumpu Oy*, 2 April 1998, C-213/96 .

Bibliography

Achtnicht M., von Graevenitz, K., Koesler, S., Löschel, A., Schoeman, B., Reaños, T., & Angel, M. "Including Road Transport in the EU-ETS–An alternative for the future". *Centre for European Economic Research (ZEW) Report*, 2015.

Adams J., "Environmental Policy and Competitiveness in a Globalised Economy: Conceptual Issues and a Review of the Empirical Evidence", in OECD *Globalisation and Environment – Preliminary Perspectives*, OECD Proceedings, OECD, Paris, 1997.

Arlinghaus J. "Impacts of Carbon Prices on Indicators of Competitiveness." *OECD Environment Working Papers* No. 87, 2015.

Borghesi S., CainelliG.andMazzanti M. "Linking emission trading to environmental innovation: evidence from the Italian manufacturing industry" *Sustainability Environmental Economics and Dynamics Studies*, Working Paper Series 27/2014.

Borghesi S., Cainelli, G., &Mazzanti, M. "Linking emission trading to environmental innovation: evidence from the Italian manufacturing industry". *Research Policy*, 44(3), 2015, pp. 669-683.

Buendía J.L & Smulders B, "Time for some realism in EC State aid law", in *Liber Amicorum Francisco Santaolalla*, Kluwer, 2008;

Biondi A, "The rationale of State aid control: A return to orthodoxy", in *Cambridge Yearbook of European Legal Studies* [2011] 35.

Calel R., Dechezlepretre A., "Environmental policy and directed technological change: evidence from the European carbon market", Working Paper FEEM, Milan, n. 22 2012.

Condon M. and Ignaciuk A. "Border Carbon Adjustment and International Trade: A Literature Review", *OECD Trade and Environment Working Papers*, 2013/06, OECD Publishing, 2013.

Cosbey A., Droege S., Fischer C., Reinaud J., Stephenson J., Weischer L. & Wooders P., "A Guide for the Concerned: Guidance on the Elaboration and Implementation of Border Carbon Adjustment" (2012) 3 Entwined Policy Report.

De Bruyn S., et al., "Does the energy intensive industry obtain windfall profits through the EU ETS? An econometric analysis for products from the refineries, iron and steel and chemical sectors", CE Delft, Delft, 2010.

De Schutter O, *Trade in the Service of Sustainable Development. Linking Trade to Labour Rights and Environmental Standards*, Hart Publishing 2015.

Deane F, *Emissions Trading and WTO Law. A Global Analysis*, Edward Elgar 2015.

Demaret P & Stewardson R, "Border tax adjustments under GATT and EC law and general implications for environmental taxes" (1994) 28(4) *Journal of World Trade* 5-66.

Ekins P., and Speck S., "Impact on competitiveness: what do we know from modelling?", in Milne. J.E. and M. S. Andersen (eds.) *Handbook of Research on Environmental Taxation*, Edward Elgar Publishing Limited, Cheltenham/Massachusetts, 2012.

Englisch J, Energy tax incentives and the GBER regime, *Documentos de trabajo Serie Politica de la Competencia No 51/2015*, CEU Ediciones 2015.

Fabra N. and Reguant M., "Pass-through of emissions costs in electricity markets", *NBER Working Paper 19613*, National Bureau of Economic Research, Massachusetts, 2013.

Flues F, and Lutz B.J."Competitiveness Impacts of the German Electricity Tax." OECD Environment Working Papers No. 88, 2015.

Hoffmann V.H., "EU ETS and Investment Decisions: The Case of the German Electricity Industry". *European Management Journal* 25 (6), 2007, pp. 464–474.

Holzer K, *Carbon-Related Border Adjustment and WTO Law*, Edward Elgar, 2014.

Hufbauer G C, Charnovitz S & Kim J, *Global warming and the world trading system*, Peterson Institute for International Economics 2009.

Kirat D. and Ahamada I., "The impact of the European Union emission trading scheme on the electricity-generation sector", *Energy Economics* 22 (2011) 995-1003.

Maillo J, "Seeking the rationale behind the current concept of fiscal State aid: the EC Draft Noticee and beyond", en Pistone P. & Villar M, *Energy Taxation, Environmental Protection and State aids. Tracing the Path from Divergence to Convergence*, IBFD, 2016, pp. 227-244.

Martin R., de Preux L. and Wagner U. "The impacts of a carbon tax on manufacturing: Evidence from microdata", *Journal of Public Economics* 117 (2014), 1-14.

Martin R., and Muûls, M. and Wagner, U. J., "The Impact of the EU ETS on Regulated Firms: What is the Evidence after Nine Years?" November 21, 2014. Available at SSRN: http://ssrn.com/abstract=2344376 or http://dx.doi.org/10.2139/ssrn.2344376

Martin R., et al. "Industry compensation under relocation risk: A firm-level analysis of the EU emissions trading scheme" National Bureau of Economic Research No. w19097, 2013.

Micheau C, *State Aid, Subsidy and Tax Incentives under EU and WTO Law*, Kluwer Law International 2014

Mokinski F. and Woelfing N., "The effect of regulatory scrutiny: Asymmetric cost pass-through in power wholesale and its end", *Journal of Regulatory Economics* 45 (2014) 175 – 193.

Nicolaides P, In search on economically rational environmental State aid: the case of exemption from environmental taxes, *European Competition Journal* 2014, p. 164.

Nicolaides P, Critical analysis of reductions from Environmental taxes in the new guidelines on State aid for environmental protection and Energy, 2014-2020, *Energy & Environment* · Vol. 26, No. 4, 2015, pp. 573-596.

Nicolaides P & Kleis M, A Critical Analysis of Environmental Tax Reductions and Generation Adequacy Provisions in the EEEAG 2014-2020, 13 *European State Aid Law Quarterly* 4 (2014),pp. 636-649.

Oberndorfer U., Alexeeva-Talebi V. and Loeschel A., "Understanding the competitiveness implications of future phases of EU ETS on the industrial sectors", *ZEW Discussion Papers No. 10- 044*, ZEW, Mannheim, 2010.

Pauwelyn J, "Carbon leakage measures and border tax adjustments under WTO law", in: Geert Van Calster & Denise Prévost (eds.), *Research Handbook on Environment, Health and the WTO*, Edward Elgar, 2013, pp. 448-506.

Pistone P. & Villar M, *Energy Taxation, Environmental Protection and State aids. Tracing the Path from Divergence to Convergence*, IBFD, 2016

Rennings K., Rexhauser, S., "Long-Term Impacts of Environmental Policy and Eco-Innovative Activities of Firms", *International Journal of Technology, Policy and Management*, 11 (3/4), 2011, pp. 274-290.

Rogge K., Hoffmann V., "The impact of the EU Emission trading system on the sectoral innovation system of power generation technologies: findings for Germany", Energy Policy, 38, 2010, pp. 7639-52.

Sato M. and Dechezleprêtre A., "Asymmetric industrial energy prices and international trade", *Working Paper*, Grantham Research Institute on Climate Change and the Environment, London School of Economics and Political Science, 2013.

Veith S., Werner J.R. and Zimmermann J., "Capital market response to emission rights returns: Evidence from the European power sector", *Energy Economics*, 31 (2009) 605-613.

Van Calster G, *International and EU Trade Law. The Environmental Challenge*, Cameron May, London, 2000.

Villar M & Wegener P, Energy taxation and key legal concepts in the EU State aid context: looking for a common understanding, Documentos de trabajo, Serie Politica de la Competencia No 50/2015, CEU Ediciones 2015.

Westin R. A, *Environmental Tax Initiatives and Multilateral Trade Agreements: dangerous collisions*, Kluwer Law International 1997.

CEU

Instituto Universitario de Estudios Europeos

Universidad San Pablo

Centre for Competition Policy

Boletín de Solicitud de números atrasados

Deseo recibir los números siguientes de los Documentos de Trabajo de la Serie *"Política de la Competencia"* del Instituto Universitario de Estudios Europeos de la Universidad CEU San Pablo:

Nombre y Apellidos .....

.....

Dirección .....

Población ..... C.P. ..... País .....

Teléfono ..... Correo electrónico .....

Nº	Título
.....	.....
.....	.....
.....	.....
.....	.....

Usted tiene derecho a acceder a la información que le concierne, recopilada en nuestro fichero de clientes, y cancelarla o rectificarla en el caso de ser errónea. A través del Instituto Universitario de Estudios Europeos podrá recibir información de su interés. Si no desea recibirla, le rogamos que nos lo haga saber mediante comunicación escrita con todos sus datos.

Instituto Universitario de Estudios Europeos
Universidad CEU San pablo
Avda. del Valle 21, 28003 Madrid
idee@ceu.es
Teléfono: 91 514 04 22 / Fax: 91 514 04 28
www.idee.ceu.es

Números Publicados

Serie Unión Europea y Relaciones Internacionales

Nº 1 / 2000 "La política monetaria única de la Unión Europea"
Rafael Pampillón Olmedo

Nº 2 / 2000 "Nacionalismo e integración"
Leonardo Caruana de las Cagigas y Eduardo González Calleja

Nº 1 / 2001 "Standard and Harmonize: Tax Arbitrage"
Nohemi Boal Velasco y Mariano Gónzalez Sánchez

Nº 2 / 2001 "Alemania y la ampliación al este: convergencias y divergencias"
José María Beneyto Pérez

Nº 3 / 2001 "Towards a common European diplomacy? Analysis of the European Parliament resolution on establishing a common diplomacy (A5-0210/2000)"
Belén Becerril Atienza y Gerardo Galeote Quecedo

Nº 4 / 2001 "La Política de Inmigración en la Unión Europea"
Patricia Argerey Vilar

Nº 1 / 2002 "ALCA: Adiós al modelo de integración europea?"
Mario Jaramillo Contreras

Nº 2 / 2002 "La crisis de Oriente Medio: Palestina"
Leonardo Caruana de las Cagigas

Nº 3 / 2002 "El establecimiento de una delimitación más precisa de las competencias entre la Unión Europea y los Estados miembros"
José María Beneyto y Claus Giering

Nº 4 / 2002 "La sociedad anónima europea"
Manuel García Riestra

Nº 5 / 2002 "Jerarquía y tipología normativa, procesos legislativos y separación de poderes en la Unión Europea: hacia un modelo más claro y transparente"
Alberto Gil Ibáñez

Nº 6 / 2002 "Análisis de situación y opciones respecto a la posición de las Regiones en el ámbito de la UE. Especial atención al Comité de las Regiones"
Alberto Gil Ibáñez

Nº 7 / 2002 "Die Festlegung einer genaueren Abgrenzung der Kompetenzen zwischen der Europäischen Union und den Mitgliedstaaten"
José María Beneyto y Claus Giering

Nº 1 / 2003 "Un español en Europa. Una aproximación a Juan Luis Vives"
José Peña González

Nº 2 / 2003 "El mercado del arte y los obstáculos fiscales ¿Una asignatura pendiente en la Unión Europea?"
Pablo Siegrist Ridruejo

Nº 1 / 2004 "Evolución en el ámbito del pensamiento de las relaciones España-Europa"
José Peña González

Nº 2 / 2004 "La sociedad europea: un régimen fragmentario con intención armonizadora"
Alfonso Martínez Echevarría y García de Dueñas

Nº 3 / 2004 "Tres operaciones PESD: Bosnia i Herzegovina, Macedonia y República Democrática de Congo"
Berta Carrión Ramírez

Nº 4 / 2004 "Turquía: El largo camino hacia Europa"
Delia Contreras

Nº 5 / 2004 "En el horizonte de la tutela judicial efectiva, el TJCE supera la interpretación restrictiva de la legitimación activa mediante el uso de la cuestión prejudicial y la excepción de ilegalidad"
Alfonso Rincón García Loygorri

Nº 1 / 2005 "The Biret cases: what effects do WTO dispute settlement rulings have in EU law?"
Adrian Emch

Nº 2 / 2005 "Las ofertas públicas de adquisición de títulos desde la perspectiva comunitaria en el marco de la creación de un espacio financiero integrado"
José María Beneyto y José Puente

Nº 3 / 2005 "Las regiones ultraperiféricas de la UE: evolución de las mismas como consecuencia de las políticas específicas aplicadas. Canarias como ejemplo"
Carlota González Láynez

Nº 24 / 2006 "El Imperio Otomano: ¿por tercera vez a las puertas de Viena?"
Alejandra Arana

Nº 25 / 2006 "Bioterrorismo: la amenaza latente"
Ignacio Ibáñez Ferrándiz

Nº 26 / 2006 "Inmigración y redefinición de la identidad europea"
Diego Acosta Arcarazo

Nº 27 / 2007 "Procesos de integración en Sudamérica. Un proyecto más ambicioso: la comunidad sudamericana de naciones"
Raquel Turienzo Carracedo

Nº 28 / 2007 "El poder del derecho en el orden internacional. Estudio crítico de la aplicación de la norma democrática por el Consejo de Seguridad y la Unión Europea"
Gaspar Atienza Becerril

Nº 29 / 2008 "Iraqi Kurdistan: Past, Present and Future. A look at the history, the contemporary situation and the future for the Kurdish parts of Iraq"
Egil Thorsås

Nº 30 / 2008 "Los desafíos de la creciente presencia de China en el continente africano"
Marisa Caroço Amaro

Nº 31 / 2009 "La cooperación al desarrollo: un traje a medida para cada contexto. Las prioridades para la promoción de la buena gobernanza en terceros países: la Unión Europea, los Estados Unidos y la Organización de las Naciones Unidas"
Anne Van Nistelrooij

Nº 32 / 2009 "Desafíos y oportunidades en las relaciones entre la Unión Europea y Turquía"
Manuela Gambino

Nº 33 / 2009 "Las relaciones transatlánticas tras la crisis financiera internacional: oportunidades para la Presidencia Española"
Román Escolano

Nº 34 / 2010 "Los derechos fundamentales en los tratados europeos. Evolución y situación actual"
Silvia Ortiz Herrera

Nº 35 / 2010 "La Unión Europea ante los retos de la democratización en Cuba"
Delia Contreras

Nº 36 / 2010 "La asociación estratégica UE- Brasil. Retórica y pragmatismo en las relaciones Euro-Brasileñas" (Vol 1 y 2)
Ana Isabel Rodríguez Iglesias

Nº 37 / 2011 "China's foreign policy: A European perspective"
Fernando Delage y Gracia Abad

Nº 38 / 2011 "China's Priorities and Strategy in China-EU Relations"
Chen Zhimin, Dai Bingran, Pan Zhongqi y Dingchun

Nº 39 / 2011 "Motor or Brake for European Policies? Germany's new role in the EU after the Lisbon-Judgment of its Federal Constitutional Court"
Ingolf Pernice

Nº 40 / 2011 "Back to Square One - the Past, Present and Future of the Simmenthal Mandate"
Siniša Rodin

Nº 41 / 2011 "Lisbon before the Courts: Comparative Perspectives"
Mattias Wendel

Nº 42 / 2011 "The Spanish Constitutional Court, European Law and the constitutional traditions common to the Member States (Art. 6.3 TUE). Lisbon and beyond"
Antonio López – Pina

Nº 43 / 2011 "Women in the Islamic Republic of Iran: The Paradox of less Rights and more Opportunities"
Désirée Emilie Simonetti

Nº 44 / 2011 "China and the Global Political Economy"
Weiping Huang & Xinning Song

Nº 45 / 2011 "Multilateralism and Soft Diplomacy"
Juliet Lodge and Angela Carpenter

Nº 46 / 2011 "FDI and Business Networks: The EU-China Foreign Direct Investment Relationship"
Jeremy Clegg and HinrichVoss

Nº 47 / 2011 "China within the emerging Asian multilateralism and regionalism as perceived through a comparison with the European Neighbourhood Policy"
Maria-Eugenia Bardaro & Frederik Ponjaert

Nº 48 / 2011 "Multilateralism and Global Governance"
Mario Telò

Nº 49 / 2011 "Bilateral Trade Relations and Business Cooperation"
Enrique Fanjul

Nº 50 / 2011 "Political Dialogue in EU-China Relations"
José María Beneyto, Alicia Sorroza, Inmaculada Hurtado y Justo Corti

Nº 51 / 2011 "La Política Energética Exterior de la Unión Europea: Entre dependencia, seguridad de abastecimiento, mercado y geopolítica"
Marco Villa

Nº 52 / 2011 "Los Inicios del Servicio Europeo de Acción Exterior"
Macarena Esteban Guadalix

Nº 53 / 2011 "Holding Europe's CFSP/CSDP Executive to Account in the Age of the Lisbon Treaty"
Daniel Thym

Nº 54 / 2012 "El conflicto en el Ártico: ¿hacia un tratado internacional?"
Alberto Trillo Barca

Nº 55 / 2012 "Turkey's Accession to the European Union: Going Nowhere"
William Chislett

Nº 56 / 2012 "Las relaciones entre la Unión Europea y la Federación Rusa en materia de seguridad y defensa. Reflexiones al calor del nuevo concepto estratégico de la Alianza Atlántica"
Jesús Elguea Palacios

Nº 57 / 2012 "The Multiannual Financial Framework 2014-2020: A Preliminary analysis of the Spanish position"
Mario Kölling y Cristina Serrano Leal

Nº 58 / 2012 "Preserving Sovereignty, Delaying the Supranational Constitutional Moment? The EU as the Anti-Model for regional judiciaries"
Allan F. Tatham

Nº 59 / 2012 "La participación de las CCAA en el diseño y la negociación de la política de cohesión para el periodo 2014-2020"
Mario Kölling y Cristina Serrano Leal

Nº 60 / 2012 "El planteamiento de las asociaciones estratégicas: la respuesta europea ante los desafíos que presenta el nuevo orden mundial"
Javier García Toni

Nº 61 / 2012 "La dimensión global del Constitucionalismo Multinivel. Una respuesta global a los desafíos de la globalización"
Ingolf Pernice

Nº 62 / 2012 "EU External Relations: the Governance Mode of Foreign Policy"
Gráinne de Búrca

Nº 63 / 2012 "La propiedad intelectual en China: cambios y adaptaciones a los cánones internacionales"
Paula Tallón Queija

Nº 64 / 2012 "Contribuciones del presupuesto comunitario a la gobernanza global: claves desde Europa"
Cristina Serrano Leal

Nº 65 / 2013 "Las relaciones germano-estadounidenses entre 1933 y 1945"
Pablo Guerrero García

Nº 66 / 2013 "El futuro de la agricultura europea ante los nuevos desafíos mundiales"
Marta Llorca Gomis, Raquel Antón Martín, Carmen Durán Vizán y Jaime del Olmo Morillo-Velarde

Nº 67 / 2013 "¿Cómo será la guerra del futuro? La perspectiva norteamericana"
Salvador Sánchez Tapia

Nº 68 / 2013 "Políticas y estrategias de comunicación de la Comisión Europea: actores y procesos desde que se aprueban hasta que la información llega a la ciudadanía española"
Marta Hernández Ruiz

Nº 69 / 2013 "El reglamento europeo de sucesiones. Tribunales competentes y ley aplicable. excepciones al principio general de unidad de ley"
Silvia Ortiz Herrera

Nº 70 / 2013 "Private Sector Protagonism in U.S. Humanitarian Aid"
Sarah Elizabeth Capers

Nº 71 / 2014 "Integration of Turkish Minorities in Germany"
Iraia Eizmendi Alonso

Nº 72 / 2014 "La imagen de España en el exterior: la Marca España"
Marta Sabater Ramis

Nº 73 / 2014 "Aportaciones del Mercado Interior y la política de competencia europea: lecciones a considerar por otras áreas de integración regional"
Jerónimo Maillo

Nº 74 / 2015 "Las relaciones de la UE con sus socios meridionales a la luz de la Primavera Árabe"
Paloma Luengos Fernández

Nº 75 / 2015 "De Viena a Sarajevo: un estudio del equilibrio de poder en Europa entre 1815 y 1914"
Álvaro Silva Soto

Nº 76 / 2015 "El avance de la ultraderecha en la UE como consecuencia de la crisis: Una perspectiva del contexto político de Grecia y Francia según la teoría del 'chivo expiatorio'"
Eduardo Torrecilla Giménez

Nº 77 / 2016 "La influencia de los factores culturales en la internacionalización de la empresa: el caso de España y Alemania"
Blanca Sánchez Goyenechea

Nº 78 / 2016 "La Cooperación Estructurada Permanente como instrumento para una defensa común"
Elena Martínez Padilla

Nº 79 / 2016 "The European refugee crisis and the EU-Turkey deal on migrants and refugees"
Guido Savasta

Nº 80 / 2016 "Brexit. How did the UK get here?"
Izabela Daleszak

Serie Política de la Competencia

Nº 1 / 2001 "El control de concentraciones en España: un nuevo marco legislativo para las empresas"
José María Beneyto

Nº 2 / 2001 "Análisis de los efectos económicos y sobre la competencia de la concentración Endesa-Iberdrola"
Luis Atienza, Javier de Quinto y Richard Watt

Nº 3 / 2001 "Empresas en Participación concentrativas y artículo 81 del Tratado CE: Dos años de aplicación del artículo 2(4) del Reglamento CE de control de las operaciones de concentración"
Jerónimo Maíllo González-Orús

Nº 1 / 2002 "Cinco años de aplicación de la Comunicación de 1996 relativa a la no imposición de multas o a la reducción de su importe en los asuntos relacionados con los acuerdos entre empresas"
Miguel Ángel Peña Castellot

Nº 2 / 2002 "Leniency: la política de exoneración del pago de multas en derecho de la competencia"
Santiago Illundaín Fontoya

Nº 3 / 2002 "Dominancia vs. disminución sustancial de la competencia ¿cuál es el criterio más apropiado?: aspectos jurídicos"
Mercedes García Pérez

Nº 4 / 2002 "Test de dominancia vs. test de reducción de la competencia: aspectos económicos"
Juan Briones Alonso

Nº 5 / 2002 "Telecomunicaciones en España: situación actual y perspectivas"
Bernardo Pérez de León Ponce

Nº 6 / 2002 "El nuevo marco regulatorio europeo de las telecomunicaciones"
Jerónimo González González y Beatriz Sanz Fernández-Vega

Nº 1 / 2003 "Some Simple Graphical Interpretations of the Herfindahl-Hirshman Index and their Implications"
Richard Watt y Javier De Quinto

Nº 2 / 2003 "La Acción de Oro o las privatizaciones en un Mercado Único"
Pablo Siegrist Ridruejo, Jesús Lavalle Merchán, Emilia Gargallo González

Nº 3 / 2003 "El control comunitario de concentraciones de empresas y la invocación de intereses nacionales. Crítica del artículo 21.3 del Reglamento 4064/89"
Pablo Berenguer O´Shea y Vanessa Pérez Lamas

Nº 1 / 2004 "Los puntos de conexión en la Ley 1/2002 de 21 de febrero de coordinación de las competencias del Estado y las Comunidades Autónomas en materia de defensa de la competencia"
Lucana Estévez Mendoza

Nº 2 / 2004 "Los impuestos autonómicos sobre los grandes establecimientos comerciales como ayuda de Estado ilícita ex art. 87 TCE"
Francisco Marcos

Nº 1 / 2005 "Servicios de Interés General y Artículo 86 del Tratado CE: Una Visión Evolutiva"
Jerónimo Maillo González-Orús

Nº 2 / 2005 "La evaluación de los registros de morosos por el Tribunal de Defensa de la Competencia"
Alfonso Rincón García Loygorri

Nº 3 / 2005 "El código de conducta en materia de fiscalidad de las empresas y su relación con el régimen comunitario de ayudas de Estado"
Alfonso Lamadrid de Pablo

Nº 18 / 2006 "Régimen sancionador y clemencia: comentarios al título quinto del anteproyecto de la ley de defensa de la competencia"
Miguel Ángel Peña Castellot

Nº 19 / 2006 "Un nuevo marco institucional en la defensa de la competencia en España"
Carlos Padrós Reig

Nº 20 / 2006 "Las ayudas públicas y la actividad normativa de los poderes públicos en el anteproyecto de ley de defensa de la competencia de 2006"
Juan Arpio Santacruz

Nº 21 / 2006 "La intervención del Gobierno en el control de concentraciones económicas"
Albert Sánchez Graells

Nº 22 / 2006 "La descentralización administrativa de la aplicación del Derecho de la competencia en España"
José Antonio Rodríguez Miguez

Nº 23 / 2007 "Aplicación por los jueces nacionales de la legislación en materia de competencia en el Proyecto de Ley"
Juan Manuel Fernández López

Nº 24 / 2007 "El tratamiento de las restricciones públicas a la competencia"
Francisco Marcos Fernández

Nº 25 / 2008 "Merger Control in the Pharmaceutical Sector and the Innovation Market Assessment. European Analysis in Practice and differences with the American Approach"
Teresa Lorca Morales

Nº 26 / 2008 "Separación de actividades en el sector eléctrico"
Joaquín Mª Nebreda Pérez

Nº 27 / 2008 "Arbitraje y Defensa de la Competencia"
Antonio Creus Carreras y Josep Maria Julià Insenser

Nº 28 / 2008 "El procedimiento de control de concentraciones y la supervisión por organismos reguladores de las Ofertas Públicas de Adquisición"
Francisco Marcos Fernández

Nº 29 / 2009 "Intervención pública en momentos de crisis: el derecho de ayudas de Estado aplicado a la intervención pública directa en las empresas"
Pedro Callol y Jorge Manzarbeitia

Nº 30 / 2011 "Understanding China's Competition Law & Policy: merger control as a case study"
Jerónimo Maillo

Nº 31 / 2012 Autoridades autonómicas de defensa de la competencia en vías de extinción
Francisco Marcos

Nº 32 / 2013 "¿Qué es un cártel para la CNC?"
Alfonso Rincón García-Loygorri

Nº 33 / 2013 "Tipología de cárteles un estudio de los 20 casos resueltos por la CNC"
Justo Corti Varela

Nº 34 / 2013 "Autoridades responsables de la lucha contra los cárteles en España (división de poderes y funciones con la UE, reparto interno con las CCAA, aplicación administrativa-judicial, dotación de recursos humanos y materiales)."
José Antonio Rodríguez Miguez

Nº 35 / 2013 "Una revisión de la literatura económica sobre el funcionamiento interno de los cárteles y sus efectos económicos"
María Jesús Arroyo Fernández y Begoña Blasco Torrejón

Nº 36 / 2013 "Poderes de Investigación de la Comisión Nacional de la Competencia"
Alberto Escudero

Nº 37 / 2013 "*Screening* de la autoridad de competencia: Mejores prácticas internacionales"
María Jesús Arroyo Fernández y Begoña Blasco Torrejón

Nº 38 / 2013 "Objetividad, predictibilidad y determinación normativa. Los poderes normativos ad extra de las autoridades de defensa de la competencia en el control de los cárteles"
Carlos Padrós Reig

Nº 39 / 2013 "La revisión jurisdiccional de los expedientes sancionadores de cárteles"
Fernando Díez Estella

Nº 40 / 2013 "Programas de recompensas para luchar contra los cárteles en Europa: una comparativa con terceros países"
Jerónimo Maíllo González-Orús

Nº 41 / 2014 "La criminalización de los cárteles en la Unión Europea"
Amparo Lozano Maneiro

Nº 42 / 2014 "Posibilidad de sancionar penalmente los cárteles en España, tanto en el presente como en el futuro"
Álvaro Mendo Estrella

Nº 43 / 2014 "La criminalización de los hardcore cartels: reflexiones a partir de la experiencia de EE.UU. y Reino Unido"
María Gutiérrez Rodríguez

Nº 44 / 2014 "La escasez de acciones de daños y perjuicios derivadas de ilícitos antitrust en España, ¿por qué?"
Fernando Díez Estella

Nº 45 / 2014 "Cuantificación de daños de los cárteles duros. Una visión económica"
Rodolfo Ramos Melero

Nº 46 / 2014 "El procedimiento sancionador en materia de cárteles"
Alfonso Lamadrid de Pablo y José Luis Buendía Sierra

Nº 47 / 2014 "Japanese Cartel Control in Transition"
Mel Marquis y Tadashi Shiraishi

Nº 48 / 2015 "Una evaluación económica de la revisión judicial de las sanciones impuestas por la CNMC por infracciones anticompetitivas"
Javier García-Verdugo

Nº 49 / 2015 "The role of tax incentives on the energy sector under the Climate Change's challenges"
Pasqueale Pistone e Iñaki Bilbao

Nº 50 / 2015 "Energy taxation and key legal concepts in the EU state aid context: looking for a common understanding"
Marta Villaz Ezcurra y Pernille Wegenen

Nº 51 / 2015 "Energy taxation and key legal concepts in the EU state aid context: looking for a common understanding"
Joachim English

Nº 52 / 2016 "The role of the polluter pays principle and others key legal principles in energy taxes, on an state aid context"
Dr. José A. Rozas

Serie Economía Europea

Nº 1 / 2001 "Impacto económico de la inmigración de los Países de Europa Central y Oriental a la Unión Europa"
Mª del Mar Herrador Morales

Nº 1 / 2002 "Análisis de la financiación de los Fondos Estructurales en el ámbito de la política regional de la Unión Europea durante el período 1994-1999"
Cristina Isabel Dopacio

Nº 2 / 2002 "On capital structure in the small and medium enterprises: the spanish case"
Francisco Sogorb Mira

Nº 3 / 2002 "European Union foreign direct investment flows to Mercosur economies: an analysis of the country-of-origin determinants"
Martha Carro Fernández

Nº 1 / 2004 "¿Es necesario reformar el Pacto de Estabilidad y Crecimiento?"
Ana Cristina Mingorance

Nº 2 / 2004 "Perspectivas financieras 2007-2013: las nuevas prioridades de la Unión Europea y sus implicaciones en la política regional"
Cristina Serrano Leal, Begoña Montoro de Zulueta y Enrique Viguera Rubio

Nº 3 / 2004 "Stabilisation Policy in EMU: The Case for More Active Fiscal Policy"
María Jesús Arroyo Fernández y Jorge Uxó González

Nº 1 / 2005 "La negociación de las perspectivas financieras 2007-2013: Una historia de encuentros y desencuentros"
Cristina Serrano Leal

Nº 9 / 2006 "La cuestión agrícola en las negociaciones comerciales multilaterales"
Ana Fernández-Ardavín Martínez y Mª Ángeles Rodríguez Santos

Nº 10 / 2007 "El modelo de desarrollo finlandés y su posible adaptación a los países del Este"
Zane Butina

Nº 11 / 2008 "La estrategia de Lisboa como respuesta de la UE a los retos de la globalización y al envejecimiento de su población"
Miguel Moltó Calvo

Serie del Centro de Estudios de Cooperación al Desarrollo

Nº 1 / 2003 "Papel de la UE en las recientes cumbres internacionales"
Mónica Goded Salto

Nº 1 / 2004 "La asociación Euro-Mediterránea: Un instrumento al servicio de la paz y la prosperidad"
Jesús Antonio Núñez Villaverde

Nº 2 / 2004 "La retroalimentación en los sistemas de evaluación. Experiencias en la cooperación al desarrollo"
José María Larrú Ramos

Nº 3 / 2004 "Migraciones y desarrollo: propuestas institucionales y experiencias prácticas"
Carlos Giménez, Alberto Acosta, Jaime Atienza, Gemma Aubarell, Xabier Aragall

Nº 4 / 2004 "Responsabilidad social corporativa y PYMES"
Amparo Merino de Diego

Nº 1 / 2005 "La relación ONG-Empresa en el marco de la responsabilidad social de la empresa"
Carmen Valor y Amparo Merino

Nº 1 / 2008 "Dos modalidades de evaluación: evaluaciones de impacto aleatorias y evaluaciones participativas"
José María Larrú Ramos y Jorge Lugrís Llerandi

Nº 2 / 2008 "A system not fit for purpose?"
Sven Grimm

Nº 3 / 2008 "El fortalecimiento institucional de la sociedad civil: principal desafío de la cooperación internacional"
Ramón E. Daubón

Nº 4 / 2009 "La relación entre las instituciones y el desarrollo económico de las naciones"
Pablo Bandeira

Nº 5 / 2009 "El desarrollo institucional en el contexto de la ineficacia de la ayuda oficial: valoración crítica y propuestas de acción"
Pablo Bandeira

Nº 6 / 2009 "El fortalecimiento de capacidades y el apoyo al desarrollo desde las bases: la experiencia de la RedEAmérica"
Rodrigo Villar

Nº 7 / 2009 "Mind the gap: Addressing the "Delivery Challenge" in EC Development Cooperation"
Jean Bossuyt

Nº 8 / 2009 "De la reforma política en nuevas democracias: aspectos sistémicos e institucionales y calidad de la democracia"
Manuel Alcántara Sáez y Fátima García Díez

Nº 9 / 2009 "Algunas limitaciones metodológicas para analizar la gobernabilidad"
Miguel Fernández Trillo-Figueroa

Nº 10 / 2009 "Fortalecimiento de la sociedad civil para la acción pública y la gobernanza democrática en contextos de desarrollo"
Gonzalo Delamaza

Nº 11 / 2010 "La gestión de la información en organizaciones de desarrollo Vol. 1 y Vol. 2"
Rodríguez - Ariza Carlos

Nº 12 / 2010 "¿Más es mejor?"
Larru, José María

Nº 13 / 2010 "Civil society capacity building: An approach in Uganda"
Groenendijk, Kees

Nº 14 / 2010 "El futuro de la cooperación europea al desarrollo: ¿Buscar soluciones globales o volver a un nicho para 2020?"
Sven Grimm y Erik Lundsgaarde

Nº 15 / 2011 "Dos métodos de evaluación: criterios y teoría del programa"
Juan Andrés Ligero Lasa

Nº 16 / 2012 "Guía para el uso de herramientas de medición de la calidad de las instituciones públicas en la cooperación internacional"
Pablo Bandeira

Nº 17 / 2012 "Fortalecimiento institucional y desarrollo: herramientas prácticas para los actores de la cooperación"
Daniel Gayo, Carlos Garcimartín, Roberto Pizarro Mondragón, Eloy Bedoya, Xavi Palau, Graciela Rico, Mª Jesús Vitón y Esther del Campo

Nº 18 / 2012 "Cooperación técnica para el fortalecimiento institucional: herramientas prácticas para fomentar sus resultados"
Luisa Moreno, Luis Cámara, Juan Ramón Cañadas, Fernando Varela, Cristina Fernández, JordiMontagud O'Curry, Inmaculada Zamora

Nº 19 / 2013 "*Governance matters*. Algunas lecciones aprendidas en proyectos de fortalecimiento institucional"
Ana Fernández-Ardavín, Désirée Simonetti y Fernanda Villavicencio

Nº 20 / 2013 "La integración de la evaluación en el ciclo de las intervenciones de las ONGD"
José María Larrú y María Méndez

Nº 21 / 2013 "El fortalecimiento de las instituciones públicas en América Latina: situación actual y retos"
Pablo Bandeira

Nº 22 / 2014 "Un marco de referencia para las ONGD en la construcción de instituciones para el desarrollo"
Déborah Itriago

Nº 23 / 2014 "10 desafíos que enfrentan las ONGD en el fortalecimiento institucional para el desarrollo"
Déborah Itriago

Nº 24 / 2014 "Calidad y utilidad de las evaluaciones en la Cooperación para el Desarrollo en España"
Rafael Monterde Díaz

Nº 25 / 2014 "La Unión Europea y la Agenda de Desarrollo post-2015"
José María Larrú y Javier Sota

Nº 26 / 2014 "El seguimiento externo orientado a resultados (SER): una buena práctica para aumentar la eficacia de la ayuda al desarrollo"
Juan Manuel Santomé & Natalia Sagrario

Serie Arbitraje Internacional y Resolución Alternativa de Controversias

Nº 1 / 2007 "Towards a new paradigm in international arbitration. The Town Elder model revisited"
David W. Rivkin

Nº 2 / 2008 "Los árbitros y el poder para dictar condenas no pecuniarias"
David Ramos Muñoz

Nº 3 / 2008 "La lucha contra las prerrogativas estatales en el arbitraje comercial internacional"
José Fernando Merino Merchán

Nº 4 / 2009 "Due process and public policy in the international enforcement of class arbitration awards"
Stacie I. Strong

Nº 5 / 2009 "The permanent court of arbitration and the uncitral arbitration rules: current interaction and future prospectives"
Sarah Grimmer

Abstract: This research inquires on the balance between two goals, competitiveness and environmental protection, and identify the contributions of the different legal instruments under examination to this balance, in particular, State aid instruments (GBER and Environmental Guidelines), the Energy Tax Directive (ETD), the Emissions Trade System (ETS) and Environmental Border Tax Adjustments (EBTAs).

Keywords: *Energy taxation, State aids, Competitiveness.*

Ref. 553321-EPP-1-2014-1-ES-EPPJMO-PROJECT

Co-funded by the Erasmus+ Programme of the European Union

Ref: DER 2014-58191-P

GOBIERNO DE ESPAÑA
MINISTERIO DE ECONOMÍA Y COMPETITIVIDAD
SECRETARÍA DE ESTADO DE INVESTIGACIÓN, DESARROLLO E INNOVACIÓN

Instituto Universitario de Estudios Europeos
Universidad CEU San Pablo
Avda. del Valle 21, 28003 Madrid
Teléfono: 91 514 04 22 | Fax: 91 514 04 28
idee@ceu.es, **www.idee.ceu.es**

ISBN: 978-84-16477-45-6