

**THE INCLUSION OF SHIPPING IN THE EU EMISSION TRADING SCHEME:
A LEGAL ANALYSIS IN THE LIGHT OF PUBLIC INTERNATIONAL LAW**

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ABSTRACT: After regulating Greenhouse Gas emissions from air transport, the European Union is now contemplating taking action on emissions from the shipping sector. In order to do so, the European Commission carried out a public consultation process between January and April 2012. This article analyses the legal problems that would arise, in the light of Public International Law, should the European Union decide to follow the path of aviation and include shipping under the European Emission Trading Scheme (ETS). To do so, the focus will be placed on six different normative bodies of international law: (1) the United Nations Framework Convention on Climate Change and the Kyoto Protocol; (2) the MARPOL Convention; (3) the United Nations Convention on the Law of the Sea; (4) the General Agreement on Tariffs and Trade and the General Agreement on Trade of Services; (5) the principle of sovereignty over maritime areas; and (6) the bilateral agreements ratified by the EU containing clauses on maritime transport. The structure of each of the six normative bodies will be as follows: international commitments under each international norm, possibility of enforcement before tribunals and analysis of the legality of the EU measure in relation to that norm.

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RESUM: Una vegada regulades les emissions de gasos d'efecte hivernacle del transport aeri, la Unió Europea es planteja ara actuar sobre les emissions del sector de transport marítim, pel que entre gener i abril de 2012 va dur a terme un procediment de consulta pública. En aquest article analitzarem els problemes legals que es plantejarien, a la llum del Dret Internacional Públic, si la Unió Europea optés per, seguint el camí de l'aviació, incloure el transport marítim en el Sistema Europeu de Comerç d'Emissions (ETS). Per a això, s'estudien un total de 6 normes internacionals – (1) la Convenció Marc de Nacions Unides contra el canvi Climàtic i el Protocol de Kyoto; (2) la Convenció MARPOL; (3) la Convenció de les Nacions Unides sobre Dret del Mar; (4) l'Acord General de Tarifes i Comerç i l'Acord General de Comerç de Serveis; (5) el principi de sobirania a l'àrea marina i; (6) els acords bilaterals de la UE amb clàusules sobre transport marítim. Dins de cada apartat, s'analitzen els compromisos internacionals adquirits, les possibilitats de fer valer la norma internacional davant els tribunals i la legalitat de la mesura europea en relació amb tal norma.

RESUMEN: Una vez reguladas las emisiones de gases de efecto invernadero del transporte aéreo, la Unión Europea se plantea ahora actuar sobre las emisiones del sector de transporte marítimo, para lo que entre enero y abril de 2012 llevó a cabo un procedimiento de consulta pública. En este artículo se abordarán los problemas legales que podrían surgir, a la luz del Derecho Internacional Público, si la Unión Europea optara por, siguiendo el camino de la aviación, incluir el transporte marítimo en el Sistema Europeo de Comercio de Emisiones (ETS). Para ello, se estudian un total de 6 cuerpos jurídicos internacionales – (1) la Convención Marco de Naciones Unidas contra el cambio Climático y el Protocolo de Kioto; (2) la Convención MARPOL; (3) la Convención de Naciones Unidas sobre Derecho del Mar; (4) el Acuerdo General de Tarifas y Comercio y el Acuerdo General de Comercio de Servicios; (5) el principio de soberanía en el área marina y; (6) los acuerdos bilaterales de la UE con cláusulas sobre transporte marítimo. Dentro de cada apartado, se analizan los compromisos internacionales adquiridos, las posibilidades de hacer valer la norma internacional ante los tribunales y la legalidad de la medida europea en relación con tal norma.

KEYWORDS: Emissions of the shipping sector — European Emission Trading System — Kyoto Protocol — WTO law — Sovereignty over maritime areas

PARAULES CLAU: Emissions del sector de transport marítim — Sistema Europeu de Comerç d'Emissions — Protocol de Kyoto — dret de l'OMC — Sobirania marítima

PALABRAS CLAVE: Emisiones del sector del transporte marítimo — Sistema Europeo de Comercio de Emisiones — Protocolo de Kioto—derecho de la OMC — Soberanía marítima

Summary: I. Introduction. II. The current European regime. III. UNFCCC and the Kyoto Protocol. 1. International commitments. 2. Enforcement. 3. Legality of the EU measure. 3.1. The CBDR principle. 3.2. Article 2(2) of the Kyoto Protocol. IV. International Maritime Organization. 1. International commitments. 2. Enforcement. 3. Legality of the EU measure. V. UNCLOS. 1. International commitments in relation to shipping emissions. 2. Enforcement. 3. Legality of the EU measure. VI. WTO law. 1. International commitments in relation to shipping emissions. 2. Enforcement. 3. Legality of the EU measure. 3.1. GATT. A. Article III:2: fiscal measures. B. Article III:4: non fiscal internal measures. C. Article V: goods in transit. D. Article XI: restrictions on imports. E. Article XX: justifications. 3.2. GATS. VII. Principle of sovereignty over maritime areas. 1. International commitments in relation to shipping emissions. 2. Enforcement. 3. Legality of the EU measure. VIII. Bilateral Agreements. 1. EC-China Agreement on Maritime Transport. 2. Other agreements. IX. Conclusions. X. Bibliography.

I. INTRODUCTION

Since January 2012 carbon dioxide emissions delivered by commercial flights taking off or landing at European airports are covered by the European Emissions Trading Scheme.² This decision, the legality of which has been accepted by the Court of Justice of the European Union,³ has created major controversies between the European Union and its main trade partners,⁴ notably in relation to the inclusion in the system of non-

² Directive 2008/101/EC, 19 November 2008, amending Directive 2003/87/EC, so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, [2009] O.J. L 8/3. In principle, allowances will need to be surrendered by airlines before April 2013. Nevertheless, it should be noted that on 12 November 2012, the EU Commissioner for Climate Action, Connie Hedegaard, proposed to suspend the entry into force of the scheme for international flights in order to facilitate reaching an international agreement at ICAO level on a global market-based mechanism for international air traffic. It seems that this decision will not, at first glance, solve the problem of potential breaches of the EU scheme by Chinese airlines, whose government has banned them from taking part in the scheme, because a flight from one EU city to another one operated by a Chinese company will still fall under the EU ETS.

³ Case C-366/10, *Air Transport Association of America*. Not yet reported. Judgement of 21 December 2011.

⁴ See, for example, "EU emission tax may trigger aviation trade war", *China Daily*, 6 January 2012; "China prohíbe a sus aerolíneas que paguen por las emisiones de CO2", *El País*, 6 February 2012; "Taxe carbone: la Chine s'oppose à l'UE", *Le Monde*, 6 February 2012; "Europe flies into clean air turbulence", *Financial Times*, 7 February 2012; "Chinese threaten to cancel Airbus orders in ETS row", *European Voice*, 11 March 2012.

European airlines. This division has also extended among scholars, who are now involved in widespread debate.⁵

The “carbon war” could soon spread to include the battlefield of shipping, since the European Union intends to regulate carbon emissions from ships in a similar way.⁶ If this option were to be enacted, it would constitute another major step in EU climate policy because greenhouse gas (GHG hereinafter) emissions from ships represent 3.3% of global carbon emissions.⁷ Throughout this article, the goal is to analyse the legality of the potential inclusion of GHG emissions from ships in the European Emission Trading Scheme.

⁵ See, for example: KULOVESI, K., “Make Your Own Special Song, Even if Nobody Else Sings Along: International Aviation Emissions and the EU Emissions Trading Scheme”, *Climate Law*, Vol. 2, No. 4, 2011; CLEMENT-WILZ, L., “Le système européen d’échange de quotas d’émission de gaz à effet de serre face aux règles du droit international”, *Revue des affaires européennes*, 2011, pp.859-867; MAYER, B., “A defense of the EU Emission Trading Scheme in aviation activities”, National University of Singapore, Centre of International Sustainable Development Law, Working Papers Series, November 2011; HAVEL, B.F. & MULLIGAN, J.Q., “The Triumph of Politics: Reflections on the Judgment of the Court of Justice of the European Union: validating the inclusion of non-EU airlines in the Emission Trading Scheme”, *Air and Space Law*, Vol. 37, No. 1, 2012, pp. 3-33; BARTELS, L., “The Inclusion of Aviation in the EU ETS: WTO Law considerations”, *International Centre for Trade and Sustainable Development, Trade and Sustainable Energy Series No. 6*, April 2012; MELTZER, J., “Climate Change and Trade – The EU Aviation Directive and the WTO”, *Journal of International Economic Law* 15 2012, 1, pp. 111-156; NKUEPO, H.J., “EU ETS Aviation Discriminates Against Developing Countries”, *Africa’s Trade Law*, Issue: 7, April 2012, pp.1-6; SCOTT, J., & RAJAMANI, L., “EU Climate change Unilateralism: International Aviation in the European Emissions Trading Scheme”, *European Journal of International Law*, Vol. 23, No. 2, 2012, pp.1-31; TUNTENG, V. et al., “Legal Analysis on the inclusion of civil aviation on the European Union Emissions Trading System”, *Centre for International Sustainable Development Law, Brief*, 2012; MAYER, B., “Case C-366/10, Air Transport Association of America and Others v. Secretary of State for Energy and Climate Change”, *Common Market Law Review*, vol 49, n 3 2012, pp.1113-1139; PROUTEAU, J., “Gaz à effet de serre et activités aériennes : le système d’échange de quotas au prisme du droit international entre compatibilité juridique et affrontement politique”, *Revue Lamy droit des affaires* 2012, n° 71 pp.75-78; ATHEN, M., “Hinterm Horizont geht’s weiter! Einbeziehung des Luftverkehrs in den Handel mit Treibhausgasemissionszertifikaten” *Europäische Zeitschrift für Wirtschaftsrecht* 2012, pp.337-341.

⁶ “Commission sets sight on including shipping on the EU ETS”, *European Voice*, 8 March 2012; for a detailed analysis see: RINGBOM, H., “Global problem – Regional solution? International Law Reflections on an EU CO2 Emissions Trading Scheme for Ships”, *The International Journal of Marine and Coastal Law* 2011, 26, p. 619.

⁷ IMO, Second GHG Study, 2009, p.29; in 2006, international shipping generated 870 MT, which amounts to 2.7% of world emissions in 2007, whereas domestic shipping causes 180 MT (0.6% of the world total). However, this number is not without controversy, and some studies have suggested it could be much higher: the *Institut für Physik der Atmosphäre* estimated carbon emissions from ships to represent 5% of world emissions in 2007 and British Petrol Marine considers that ships cause 4% of the global total (Source: “CO2 output from shipping twice as much as airlines”, *The Guardian*, 3 March 2007) whereas a UN report leaked in 2008 considered that they amounted to 4,5% of world emissions - 1.12 Bn tonnes. (Source: “True scale of CO2 emissions from shipping revealed”, *The Guardian*, 13 February 2008).

II. THE CURRENT EUROPEAN REGIME

The EU has globally committed to reduce its carbon emissions by 20% or more in 2020.⁸ As far as shipping is concerned, back in 2003 the European Commission was supposed to regulate carbon emissions if no action was adopted internationally by the end of that year.⁹ However, no legislative measures were taken.

Nowadays, several provisions provide for a new mandate to the EU to regulate emissions from ships in 2013 if no international agreement is reached.¹⁰ This time, it is expected that legislation will come into force.¹¹ In addition, the 2011 White Paper on Transport states that shipping emissions need to be reduced by at least 40% in 2050.¹²

Since no international agreement was made either at the Durban Conference of the Parties (COP thereafter) 17 or by the International Maritime Organization (IMO), the European Commission opened a consultation process on 19 January 2012, which was closed on 12 April 2012,¹³ in an attempt to explore different ways of regulating carbon emissions from ships. In particular, four policy options were considered: a compensation fund, inclusion in the EU Emissions Trading Scheme, a fuel or carbon tax and a mandatory emissions reduction for every ship. Not surprisingly, countries like China are already opposing any unilateral action the EU may take.¹⁴

In February 2012 the Economic and Financial Affairs Council (ECOFIN) invited "the Commission to prepare a reflection paper by June (2012) on the carbon pricing of global aviation and maritime transportation"¹⁵, which draws the conclusion that the Emission Trading Scheme (ETS hereinafter) option could be the one that EU

⁸ Conclusions of the European Council, 8-9 March 2007, para 32. Doc 7224/1/07, 2.05.2007.

⁹ Article 5(2)(iii)(b) of Decision 1600/2002/EC of the European Parliament and the Council of 22 July 2002 laying down the Sixth Community Environmental Action Programme [2002] O.J. L242/1.

¹⁰ Recital 3 of Directive 2009/29/EC, 5 June 2009, amending Directive 2003/87/EC to improve and extend the GHG emission allowance trading scheme in the Community, [2009] OJ L140; Recital 2 of the Decision 406/2009/EC of the EP and the Council of 23 April 2009 on the effort of MS to reduce their GHG emissions, [2009] O.J. L140.

¹¹ "Commission sets sight on including shipping on the EU ETS", *European Voice*, 8 March 2012.

¹² Commission White Paper "Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system" 28 March 2011, COM(2011) 144 final, 2.3, para 29.

¹³ European Commission: Public Consultation for "Including maritime transport emissions in the EU's greenhouse gas commitment", 19 January-12 April 2012.

¹⁴ "China protests EU shipping carbon tax", *Beijing Review*, 2 March 2012, available at: <http://www.bjreview.com.cn/headline/txt/2012-03/02/content_429781.htm>, retrieved on 5.03.2012.

¹⁵ Council Conclusions: Climate finance - follow-up to the Durban Conference 3148th Economic and Financial Affairs Council meeting Brussels, 21 February 2012, para 6.

institutions have in mind, although the final decision does not seem to have been made yet.¹⁶

Several international provisions could clash with the inclusion of shipping in the EU ETS. They will be analysed in turn, following a three-step approach. First, the international provisions will be identified. Second, the question of enforceability will be addressed. Thirdly, the legality of the European measure will be examined in relation to international norms.

III. UNITED NATIONS FRAMEWORK CONVENTION ON CLIMATE CHANGE (UNFCCC) AND THE KYOTO PROTOCOL

1. International commitments

An international agreement on emissions from ships and airplanes was not reached when the Kyoto Protocol was negotiated. It was during the Copenhagen Summit of 2009 that the possibility of regulating emissions from ships was at last extensively discussed.¹⁷ The EU proposed a 20% reduction in emissions from ships for 2020 in relation to 2005 levels.¹⁸ Nevertheless, an agreement was not concluded, since the US and some developing countries strongly opposed any numerical compromise.

¹⁶ At the meeting on “*Green ports, green shipping*”, (<http://www.greens-efa.eu/green-ports-green-shipping-7458.html>) hosted in Brussels by MEP Nikos Chrysogelos on 27 June 2012, and which was attended by the author, the representative of the European Commission stated that there was still no final decision on what policy option to choose with regards to regulating emissions from shipping. Moreover, in September 2012, Ms. Elina Bardam, head of the international carbon market unit of the European Commission, said: “*We are including different types of measures, ranging from measurement, reporting and verification, to technical standards, to setting baselines. These options are all on the table. (...) The ETS-type schemes are part of the options that are being considered.*” (See “EU to present proposal to curb carbon emissions from shipping”, *Bloomberg*, 18 September 2012, available at: <http://www.bloomberg.com/news/print/2012-09-18/eu-to-present-proposal-to-curb-co2-emissions-from-shipping-1-.html>, last retrieved on 18 September 2012); in any event, according to the latest news, it seems very unlikely that the EU will regulate carbon emissions from ships before the end of 2012 (See “EU plan to tackle ships’ CO2 unlikely this year”, *ENDS Europe*, 18 September 2012, available at: <http://www.endseurope.com/29601/eu-plan-to-tackle-ships-co2-unlikely-this-year>, last retrieved on 19 September 2012).

¹⁷ According to Transport & Environment, “more discussion amongst countries in bunker fuel at the UNFCCC occurred in the past three months than during the past ten years” (“Aviation and Shipping Emissions After Copenhagen”, *Euractiv*, 12 January 2010, available on-line: <http://www.euractiv.com/transport/aviation-and-shipping-emissions-after-copenhagen-analysis-201893> retrieved on 21.01.2012).

¹⁸ “EU proposes global aviation and shipping targets for Copenhagen”, *Transport & Environment*, 16 November 2009, available at: <http://www.transportenvironment.org/news/eu-proposes-global-aviation-and-shipping-targets-copenhagen>, retrieved on 21 February 2012.

The issue was again discussed in Cancun COP 16, but no agreement on shipping emissions was reached either,¹⁹ although a draft regulation was provided for in the chair's proposal²⁰ and in later drafts.²¹ In Durban COP 17, NGOs proposed – and the International Chamber of Shipping agreed – to use the revenues obtained by taxing global shipping emissions to establish the Green Climate Fund agreed in COP 16.²² The parties welcomed the developments made by IMO – notably, the Energy Efficiency Design Index (EEDI) and Ship Energy Efficiency Management Plan (SEEMP) – but, even though the EU tried hard,²³ nothing specific in relation to funding was agreed because of opposition from the US and India.

As a result, the Kyoto Protocol does not apply to either air or maritime transport. It only states that greenhouse gases from these two means of transport shall be limited in an agreement between the International Civil Aviation Organization (ICAO) and IMO.²⁴

The United Nations Convention on Climate Change (UNFCCC) applies to all sectors that deliver greenhouse carbon emissions, including transport.²⁵ However, no specific obligations are provided for in the Convention in relation to emissions from transport.

In conclusion, only two general international commitments stemming from the UNFCCC/Kyoto obligations could conflict with the inclusion of shipping in the EU ETS:

¹⁹ Report by the CoP on its sixteenth session, held in Cancun from 29 November to 10 December 2010 (FCCC/CP/2010/7/Add.1) and Report by the CoP serving as the meeting of the Parties to the Kyoto Protocol on its sixth session, held in Cancun from 29 November to 10 December 2010 (FCCC/KP/CMP/2010/12/Add.1).

²⁰ Paras 35-37 of the “Preparation of an outcome to be presented to the CoP for adoption at its sixteenth session to enable the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012, Possible elements of the outcome, Note by the Chair”, 24 November 2010 (FCCC/AWGLCA/2010/CRP.1).

²¹ Paras 41-43 of the “Preparation of an outcome to be presented to the CoP for adoption at its sixteenth session to enable the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012, Possible elements of the outcome Note by the Chair”, 4 December 2010 (FCCC/AWGLCA/2010/CRP.2).

²² OXFAM/WWF, *Out of the Bunker: time for a fair deal on carbon emissions*, 8 September 2011.

²³ “EU to push for inclusion of shipping and aviation emissions in climate Treaty at Durban”, *Climate Connect*, 21 November 2011, available at <<http://www.climate-connect.co.uk/Home/?q=node/1514>> retrieved on 22.02.2012.

²⁴ Article 2(2) of the Kyoto Protocol to the UNFCCC.

²⁵ *Ibidem*, Article 4(1)(c).

the common but differentiated responsibilities principle²⁶ (CBDR) and article 2(2) of the Kyoto Protocol.

2. Enforcement

There are three requirements that an international provision needs to fulfil in order to be a criterion for validity of EU law: the EU must be bound by it, the nature and the logic of the agreement must not preclude direct effect and the specific provision needs to be precise, clear and unconditional.

When it comes to the first condition, the Court of Justice (CJ or CJEU) made clear in the *ATAA Case* that the Kyoto Protocol, in so far as it has been ratified by the European Union,²⁷ “forms an integral part of EU law”²⁸ and is binding upon the Union.” However, the other two requirements for direct effect of the Kyoto Protocol are not met.

First, the CJ considered that two factors preclude the direct effect of the Kyoto Protocol: the flexibility of the emission reduction commitments and the fact that the conference of the parties had imposed non-compliance mechanisms.²⁹ Second, the relevant provision, article 2(2), is not worded in sufficiently clear, precise and unconditional terms, so it cannot be directly effective.³⁰ As a consequence of the non-fulfilment of these conditions, the Kyoto Protocol cannot be enforced before the CJEU in order to seek a declaration of invalidity of an EU internal law provision.³¹ In the *ATAA case*, even if the Kyoto Protocol had been deemed to be directly effective, there was another burden to

²⁶ Article 3(1) of the UNFCCC. The CBDR principle was first declared in Principle 7 of the Rio Declaration on Environment and Development, June 1992 and it has also been provided for in article 10 of the Kyoto Protocol.

²⁷ Council Decision 2002/358/EC of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder, [2002] O.J. L 130.

²⁸ Case C-366/10, *cit. note 3*, para 73; this principle was first declared in a case concerning the EU-Greece Association Agreement: Case 181/73 *Haegeman* [1974] ECR 449, para. 5.

²⁹ Case C-366/10, *cit. note 3*, paras 75-76; c.f Case 149/96 *Portugal v. Council* [1999] ECR I – 8425, paras 41-47.

³⁰ *Idem*, para 77.

³¹ *Idem*, para 78.

overcome, which was the fact that some of the individuals invoking it were US companies, whose country is not a party to the Kyoto Protocol.³²

With regards to the UNFCCC, and in particular, the principle of common but differentiated responsibilities, there is no doubt that it also constitutes a part of EU law,³³ but it is likely that its nature precluded direct effect, since it is formulated in even less concrete terms than the Kyoto Protocol, there are no strict enforcement mechanisms and the commitments undertaken by the Parties are flexible. Even though the CJEU did not address the issue of the direct effect of UNFCCC, since the principle of Common But Differentiated Responsibilities was not raised, Advocate General Kokkott seems to suggest a negative answer in her Opinion in the *ATTAA* case:

“Neither the [United Nations] Framework Convention [on Climate Change] nor the Kyoto Protocol contains specific provisions that could directly affect the legal status of an individual. There are no more than a few general references to ‘humankind’ and ‘humans’ in these legal instruments.”³⁴

Nevertheless, even if as a matter of EU law the Kyoto Protocol cannot render secondary law void, the EU is still internationally bound by that international agreement³⁵ and it is relevant, at least from a theoretical point of view, to see whether the EU is in breach of UNFCCC and the Kyoto Protocol. As the CJEU stated in *Racke*:

“The rules invoked (...) form an exception to the *pacta sunt servanda* principle, which constitutes a fundamental principle of any legal order and, in particular, the international legal order. Applied to international law, that principle requires that

³² GEHRING, M., “Air Transport Association of America v. Energy Secretary before the European Court of Justice: Clarifying Direct Effect and Guidance for Future Instrument Design for a Green Economy in the EU”, *Review of European Community & International Environmental Law*, forthcoming 2012, p.5.

³³ Council Decision 94/69/EC, of 15 December 1993, concerning the conclusion of the United Nations Framework Convention on Climate change, OJ L 33/13.

³⁴ AG Kokott Opinion in C-366/10, delivered 6 October 2011, para 82.

³⁵ Article 26 of the Vienna Convention on the Law of the Treaties, 1969, Vienna, 23 May 1969 and Article 26 of the Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations 1986, Vienna, 21.03.1986. Even if the EU is not a signatory of any of these Conventions, it is submitted that the principle of “*pacta sunt servanda*” constitutes a principle of customary law which is binding upon the European Union. Article 351 TFEU takes account of this principle and allows Member States to derogate from the principle of primacy of EU law in order to meet previous international obligations. Moreover, it could be argued that the “*pacta sunt servanda*” principle is similar to the EU principle of legitimate expectations, which forms an integral part of EU law (Case 112/77 *Töpper v Commission* [1978] ECR 1019, para. 19). For a discussion on article 18 of the Vienna Convention, see Case T-115/94 *Opel Austria v. Council* [1997] ECR II-43, paras 76-79 and 92-95; and on article 31 of the Vienna Convention, see *Opinion 1/91 of the Court of Justice on the EEA Agreement* [1991] ECR I-6079, para 14; Case C-312/91 *Metalsa* [1993] ECR I-3751, paragraph 12; and Case 386/08 *Brita* [2010] ECR I-01289, paras 40-44.

every treaty be binding upon the parties to it and be performed by them in good faith.”³⁶

Although very unlikely, the EU could accept the arbitration procedure provided for in UNFCCC³⁷ or Member States could submit the dispute to the International Court of Justice.³⁸

3. Legality of the EU measure

3.1. The CBDR principle

This principle obliges developed countries to lead the fight against climate change, since “the largest historical share of historical and current global greenhouse gases has originated in developed countries.”³⁹ Even if it is commonly considered that this principle has not achieved the status of customary principle of international law yet,⁴⁰ the European Union has recognised the CBDR principle, although it has also insisted that:

“(…) all developing countries, except least developed countries (LDCs), should commit to adopting low-carbon development strategies by the end of 2011. These strategies should set out a credible pathway to limit the country’s emissions through nationally appropriate mitigation actions that cover all key emitting sectors, especially the power sector, transport, major energy-intensive industries and, where significant, forests and agriculture.”⁴¹

According to the impact assessment presented by the European Commission accompanying the inclusion of aviation in the EU ETS:

“It is important to note that the measure would be fully in line with the principle of «common but differentiated responsibilities» under the UNFCCC. Incorporation of aviation emissions from routes to/from EU airports into the EU ETS would first of all be a measure taken by the Community as an Annex I Party to the UNFCCC. In

³⁶ Case 162/96 *Racke* [1998] ECR I-03655 para 49.

³⁷ Article 14(2)(b) UNFCCC.

³⁸ *Idem*, Article 14(2)(a).

³⁹ *Idem*, Recital 3.

⁴⁰ SCOTT, J., & RAJAMANI, L., “EU Climate change...”, *cit.* note 5.

⁴¹ Commission Communication “Towards a comprehensive climate change agreement in Copenhagen”, COM(2009) 39 final, p. 5.

terms of the economic impacts, a larger proportion of compliance costs would naturally be borne by Annex I carriers as they generally have a higher market share on the routes covered. However, carriers from developing countries that are able to operate in competition with Annex I carriers on such routes would of course need to be covered in order to avoid a) distortions of competition and b) discrimination as to nationality in line with the Chicago Convention.”⁴²

Developing countries have argued that the EU ETS would need to take the CBDR principle into account.⁴³ The issue was not raised in the aviation case,⁴⁴ because the claimants were US and Canadian companies, but it could be raised in the future if China starts proceedings in Germany as it has threatened to do.⁴⁵

Firstly, as it has been argued elsewhere,⁴⁶ this principle is to some extent to be found in the ETS, in so far as operators can substitute allowances by achieving reductions of emissions in developing countries⁴⁷ and they “shall support capacity building activities in developing countries.”⁴⁸

Secondly and more importantly, this principle must be accommodated with other environmental principles, comprising, amongst others, the “polluter pays” principle.⁴⁹

⁴² Commission staff working document - Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community - Impact Assessment of the inclusion of aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, SEC/2006/1684, at point 36

⁴³ Statement by *Chinese Air Transport Association on Inclusion of International Aviation in the EU ETS*, 03 October 2011 available at: <http://www.wcarn.com/list/13/13140.html> (last retrieved on 14 September 2012) It states that: “This unilateral action of EU does not provide legitimate arrangements for airlines in developing countries, gravely violates the universally accepted principle of common but differentiated responsibility in the area of combating climate change, and the provision of the Convention on International Civil Aviation (the Chicago Convention)”; *Proposals by India for inclusion of additional agenda items in the provisional agenda of the seventeenth session of the Conference of the Parties*, FCCC/CP/2011/INF.2/Add.1, 7 October 2011, p. 6 (mentioned in SCOTT, J., & RAJAMANI, L., “EU Climate change...”, p.13).

⁴⁴ C-366/10, *cit.* note 3.

⁴⁵ *El País*, *cit.* note 4

⁴⁶ KREMLIS, M. “The inclusion of shipping industry in the EU ETS”, *European Energy and Environmental Law Review*, June 2010, p. 151.

⁴⁷ Such as the JI and CDM. See Article 11(b) Directive 2003/87 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, [2009] O.J. L 140/63; see also the article published in this review: FERNANDEZ EGEA, R., “The flexible mechanisms to combat climate change: a critical view of their legitimacy”, *Revista Catalana de Dret Ambiental*, Vol 2, no. 2, 2011.

⁴⁸ *Ibidem*, Article 21a.

⁴⁹ Principle 16 of the Rio Declaration on Environment and Development, June 1992.

The situation at stake does not relate to States, but to private actors, whose links with States are far from clear.⁵⁰ Many ships do not have a real link with the country they were flagged under, and some companies establish themselves in a certain country because of tax and labour advantages.⁵¹ It is submitted that in a case such as the present one, which concerns the relations between a State and private operators who pollute, the polluter pays principle prevails over the CBDR principle.⁵²

Furthermore, the Second IMO GHG Study states that:

“the ownership and management chain surrounding ship operations can involve many players, located in various countries. In addition, the registration of a ship can move between jurisdictions several times over its lifetime. It is worth noticing that about three quarters of the world tonnage, by dead weight, of all merchant vessels engaged in international trade is registered in developing countries (not in Annex I of the Kyoto Protocol), hence making it a large portion of the world fleet; it would be ineffective for any regulatory regime to act only on the remaining portion, namely one quarter of the world fleet.”⁵³

This line of reasoning has been followed by the Marine Environment Protection Committee of the International Maritime Organization, which has clearly established that the CBDR principle shall not apply to IMO regulations, because they must be:

⁵⁰ In the case of aviation, it is argued that there is a certain link between companies and States, many of them being state-owned or recently privatized companies. However, as far as shipping is concerned, the link between the State of flagging and the vessel is not so straightforward. This is due to the phenomenon commonly referred to as “flags of convenience”, which is manifested by the distinction between the “registering country” – to whose regulation the vessels are bound and whose flag they carry – and the “controlling country” – the country of ownership, with the true controlling interest. This practice can be observed by looking at the list of countries by number of vessels flagged: Panama leads the table with 22.6% of the world fleet registered there (and with only 0.048% of the world population), followed by Liberia (10.5% of the world fleet and 0.06% of the world population), Greece (5.5% and 0.15%), Bahamas (5.3% and 0.005%) and Marshall Islands (5.3% and 0.0007%). According to UNCTAD, 66.35% of the world vessels were registered in a foreign country (Source: *2008 Review of Maritime Transport*, United Nations Conference on Trade and Development).

⁵¹ For example, MSC, one of the biggest shipping companies in the world, has its headquarters in Switzerland, a land-locked country.

⁵² See also BEYERLIN, U. and MARAUHN, T., *International Environmental Law*, Hart Publishing, 2011, p.64; for a contrary argument, in relation to aviation, see SCOTT, J., & RAJAMANI, L., “EU Climate change...”, *cit. note 5*. It has even been argued that the inclusion of aviation creates a greater burden for developing than for developed countries, because of the technical progress needed to reduce emissions and improve the efficiencies of airplanes: NKUEPO, “EU ETS Aviation...”, *cit. note 5*; for a detailed analysis of how the inclusion of aviation impacts airlines from each country, see MULLER, B., “From confrontation to collaboration? CBDR and the EU ETS aviation dispute with developing countries” *Oxford Energy and Environment Brief*, February 2012. This last author shows that 65.2% of the air transport emissions covered will be caused by EU27 + Liechtenstein, Norway and Iceland airlines, 10.1% by USA airlines, and only 2.8% and 1.1% by Chinese and Indian airlines, respectively.

⁵³ IMO, “Second GHG...”, *cit. note 7*, para 2.45.

“global in nature and applicable to all relevant ships, with appropriate differences, if any, to be based on factors such as their type, manning and operational features, irrespective of the flag they are flying or the degree of development of the flag State or the State of nationality of the owner or operator.”⁵⁴

3.2. Article 2(2) of the Kyoto Protocol

This article provides for an obligation for countries in Annex I to:

“pursue limitation or reduction of emissions of GHG not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the ICAO and the IMO respectively.”⁵⁵

This is the case of carbon dioxide, nitrous oxide and perfluorocarbons, the gases currently covered by the EU ETS.⁵⁶

It is submitted that the obligation established by article 2(2) is not an absolute one and it cannot be interpreted as conferring exclusive competence to regulate emissions from ships to IMO.

This article was also relevant in the *ATAA case*, but the CJEU did not address the problem, since it concluded that the Kyoto Protocol had no direct effect,⁵⁷ so there was no need to analyse its material provisions. Nevertheless, AG Kokott did mention the issue and said that:

“There is (...) no congruity between the parties to the UNFCCC and the Kyoto Protocol on the one hand and the parties to the Chicago Convention and the ICAO based upon it, on the other. If the ICAO were to have exclusive competence, those ICAO members who are not themselves bound by the Kyoto Protocol could impede the realisation of the Kyoto objectives.”⁵⁸

Therefore, she concludes that when the Kyoto Protocol was signed, the parties:

⁵⁴ MEPC, Legal Aspects of the Organization’s Work on Greenhouse Gas Emissions in the Context of the Kyoto Protocol, 2008 (quoted by CLIENT EARTH, *Legal implications of EU Action on GHG Emissions from the International Maritime Sector*, November 2011).

⁵⁵ Article 2(2) of the Kyoto Protocol to the UNFCCC.

⁵⁶ Annex I to Directive 2009/29/EC of 5 June 2009, amending Directive 2003/87/EC so as to improve and extend GHG emission allowance trading scheme in the Community, [2009] OJ L140.

⁵⁷ C-366/10, *cit.* note 3, paras 73-78.

⁵⁸ AG Kokott Opinion, *cit.* note 34, para. 181.

“did not commit themselves (...) to pursuing the limitation or reduction of greenhouse gases from aviation exclusively by working through the ICAO”⁵⁹.

The same line of reasoning might apply to the relationship between the Kyoto Protocol and the International Maritime Organisation. Even if the outcome reached by AG Kokott appears to be pertinent, the reasoning she followed might be flawed. AG Kokott seems to imply that the only parties to the Kyoto Protocol are the countries who have undertaken specific emissions reduction commitments (Annex I countries) and that is the reason why this group of countries cannot reach a majority at ICAO/IMO.

It is argued that a difference must be drawn between parties to the Kyoto Protocol (all the countries that have ratified it) and countries with specific reduction obligations under the Kyoto Protocol (Annex I countries). All the parties must contribute to the achievement of the objectives of the international agreements they ratify,⁶⁰ even if only some countries have specific emissions reduction goals.

Whereas the Kyoto Protocol has so far been ratified by 191 countries and the European Union,⁶¹ the International Maritime Organization is composed of 170 full members plus 3 associate members.⁶² Both in ICAO⁶³ and IMO,⁶⁴ decisions are taken under the rule “one State one vote” and the required majority is simple majority. Since the ICAO and IMO members which have not ratified the Kyoto Protocol (mainly, the United States⁶⁵)

⁵⁹ *Ibidem*, para. 182.

⁶⁰ This obligation stems from the “*pacta sunt servanda*” principle, laid down in Article 26 of the Vienna Convention on the Law of the Treaties, *cit.* note 35.

⁶¹ UNFCCC, Status of Ratification of the Kyoto Protocol, available online: http://unfccc.int/kyoto_protocol/status_of_ratification/items/2613.php retrieved 05.06.2012.

⁶² IMO, Status of Conventions, IMO, Status of Conventions at May 2012, available at: <http://www.imo.org/About/Conventions/StatusOfConventions/Pages/Default.aspx>, retrieved 05.06.2012.

⁶³ Article 48 c) of the Convention on International Civil Aviation and Rules 43 and 45 of the Standing Rules of Procedure of the Assembly of the ICAO, DOC 7600/6, adopted by the Assembly in 1952 (Resolution A6-12; Doc 7670) and amended by the Assembly in 1953 (Doc 7409, A7-P/2, p. 42), 1959 (Resolution A12-4; Doc 7998, A12-P/3), 1962 (Resolution A14-1; Doc 8268, A14-P/20), 1971 (Doc 8963, A18-P/16), 1974 (Doc 9119, A21-P/4), 1977 (Doc 9216, A22-P/10), 1980 (Doc 9317, A23-P/12), 1989 (Doc 9550, A27-P/12) and 2007 (Doc 9891, A36-P/9 — in preparation).

⁶⁴ Rule 32 of the Rules of Procedure of the IMO Assembly, Assembly Resolution A.27(II), of 13 April 1961.

⁶⁵ Only the United States and the three IMO associate Members (Macao, Hong Kong and Faroe Islands) are members of the International Maritime Organization but have not ratified the Kyoto Protocol. From 15 December 2012, Canada will join this group of States, after stating that it wishes to withdraw from the Kyoto Protocol. On the other hand, 22 countries (mainly landlocked States and very small islands) and the European Union have ratified the Kyoto Protocol but are not members of the International Maritime Organization: Armenia, Belarus, Bhutan, Botswana, Burkina Faso, Burundi, Central African Republic, Chad, Kyrgyzstan, Lao People’s Democratic Republic, Lesotho, Liechtenstein, Mali, Federated States of

do not have sufficient voting rights to prevent the objectives of the Kyoto Protocol from being achieved, in principle it is possible for emissions reductions to be adopted at the IMO level if all the parties to the Kyoto Protocol so decided.

Article 2(2), when it provides for multilateral cooperation through IMO and ICAO in order to reduce emissions, refers only to Annex I countries, because the non-Annex I countries have no obligations to reduce their emissions. It would not be congruent with the rest of the Treaty to impose an obligation to reduce emissions through IMO and ICAO to countries which have no duty to reduce emissions at all. However, article 2(2) does not imply that non-Annex I countries are completely free to boycott IMO and ICAO attempts at reducing emissions. These countries, as signatories to the Kyoto Protocol, shall in principle ensure that the objectives of the international agreement can be fulfilled.

In any case, reality shows that many non-Annex I countries have opposed the EU proposals at IMO level and it is unlikely that they could be held in breach of the Kyoto Protocol for not facilitating an agreement at the IMO level.

The main argument in favour of concluding that article 2(2) would not be violated by the unilateral inclusion of shipping emissions in the EU ETS is that the Kyoto Protocol imposes only a *bona fide* obligation of due care, which in no case can become an obstacle for Annex I countries when they try to meet their emissions reductions goals. Since emissions from ships represent 3.3% of total emissions, the fulfilment of the reduction objectives would be jeopardised by article 2(2) if it were to be interpreted as conferring exclusive competence to IMO and ICAO. If it were considered that article 2(2) would conflict with commitments under Annex B to the Protocol, the specific reduction objectives would prevail over the general-termed obligation to negotiate an agreement through ICAO and IMO.

In addition, it cannot be forgotten that international organizations are based on the principle of conferral of competences, and IMO has not been given exclusive competence to regulate carbon emissions from ships. On the contrary, the EU remains

Micronesia, Nauru, Niger, Niue, Rwanda, Swaziland, Tajikistan, Uzbekistan and Zambia. Other countries, such as Afghanistan, Andorra and Palestine, are not members to any of the two International Treaties.

competent under the Lisbon Treaty,⁶⁶ an international agreement adopted after the Kyoto Protocol.

Once it has been established that article 2(2) of the Kyoto Protocol only imposes a *bona fide* obligation to negotiate through ICAO and IMO, it shall be determined whether the duty of due care has been fulfilled. With regards to shipping, the answer must be in the affirmative, since the EU, through its Member States,⁶⁷ has repeatedly tried to promote measures at international level through the Marine Environment Protection Committee at IMO.⁶⁸ In fact, this obligation is also present in internal EU law. First, the Lisbon Treaty establishes as one of the environmental objectives the promotion of international agreements to fight environmental problems, and specifically those related to climate change.⁶⁹ And second, the Effort Sharing Decision takes account of article 2(2) and provides for EU action only in the event that no international agreement is reached.⁷⁰ The Decision was adopted in April 2009, allowing for an international agreement to be concluded until 31 December 2011. The Marine Environment Protection Committee (MEPC) has in the meantime met five times,⁷¹ and only partial and insufficient measures have been adopted.⁷²

In addition, the Court of Justice has stated that the EU ETS system needs to be extended to all sectors in order for Directive 2003/87⁷³ to comply with the equal treatment

⁶⁶ Article 4(2)(e) and article 192 Treaty on the Functioning of the European Union.

⁶⁷ The EU itself is neither a Member of IMO nor of ICAO, meaning that every proposal in relation to shipping emissions is the consequence of a previously agreed position of Member States. Internally, the EU remains competent for adopting measures for reducing emissions from maritime and air transport.

⁶⁸ The EU has made several proposals for an agreement providing for specific emissions reductions to the Marine Environment Protection Committee, but so far it has not succeeded. For an account of the last meeting of the Committee, see, for example: “IMO Failure to tackle shipping emissions may force EU action”, *Energy & Environmental Management*, 6 March 2012, available at: <<http://www.eaem.co.uk/news/imo-failure-tackle-shipping-emissions-may-force-eu-action>>, last retrieved on 06 June 2012

⁶⁹ Article 191(1)(iv) Treaty on the Functioning of the European Union.

⁷⁰ Decision 406/2009 *cit.* note 10, Recital 2; it is to be noted that when the Decision refers to aviation it says that sufficient internal measures have already been taken (the inclusion in the ETS), when it refers to shipping the possibility of reaching an agreement at IMO level or in the framework of UNFCCC is expressly mentioned.

⁷¹ The meetings were: MEPC 59 (July 2009), MEPC 60 (March 2010), MEPC 61 (October 2010), MEPC 62 (July 2011) and MEPC 63 (March 2012). MEPC 64 meets in October 2012, after this article was sent, but an agreement on an efficient and comprehensive regulation to reduce shipping emissions is not to be expected.

⁷² See section IV.1 of this article.

⁷³ Directive 2003/87, *cit.* note 47.

principle: “(the legislature) is obliged (...) to review the measures adopted, (...) at reasonable intervals, as is moreover provided for in article 30 of the directive (2003/87).”⁷⁴

In conclusion, if the EU decides to regulate emissions from ships in a unilateral manner in 2013, article 2(2) will not be breached.

IV. INTERNATIONAL MARITIME ORGANIZATION

1. International commitments

The International Maritime Organization, a UN agency established in 1948, promoted a Convention for the prevention of pollution from ships (the MARPOL Convention), which entered into force in 1973.

In 1997 the MARPOL Conference adopted a Resolution on “Carbon dioxide emissions from ships”,⁷⁵ inviting IMO to undertake a study on emissions by ships in order to contribute to the inventory of GHG emissions. The First Study was presented before the IMO Assembly of 2000.⁷⁶ In 2006 it was agreed that the study needed to be reviewed, and in 2009 IMO presented a new report on shipping emissions.⁷⁷

The MARPOL Convention has six technical annexes, of which we shall focus on Annex VI,⁷⁸ entitled “Prevention of Air Pollution from Ships”. Contrary to Annexes I and II, Annexes III to VI are ratified under a voluntary basis.⁷⁹

Annex VI sets limits for sulphur,⁸⁰ nitrogen oxides,⁸¹ ozone depleting gases⁸² and volatile organic compounds.⁸³ From 1 January 2013, a new Chapter 4 to Annex VI,

⁷⁴ Case C-127/07 *Société Arcelor Atlantique et Lorraine and Others v. Premier Ministre, Ministre de l'Écologie et du Développement durable, Ministre de l'Économie, des Finances et de l'Industrie* [2008] ECR I-09895, para 63.

⁷⁵ Resolution 8 to the 1997 Marpol Conference.

⁷⁶ IMO, MEPC 45/8 (2000).

⁷⁷ IMO, “Second GHG...”, *cit.* note 7.

⁷⁸ It entered into force on 19 May 2005 and was transposed at EU level by Directives 1999/32 and 2005/33.

⁷⁹ Annex B to CE DELFT, *Technical support for European action to reducing greenhouse gas emissions from international maritime transport*, Delft, 2009, TENDER DG ENV/C3/ATA/2008/0016.

⁸⁰ Regulation 14, Annex VI to the MARPOL Convention.

⁸¹ *Ibidem*, Regulation 13.

entitled “*Regulations on energy efficiency of ships*”, will establish international measures to reduce carbon emissions,⁸⁴ following the recommendations of the Second IMO GHG Study.⁸⁵ In order to do so, two main instruments have been implemented.

Firstly, the new rules establish the Ship Energy Efficiency Management Plan (SEEMP),⁸⁶ which intends ships to be sailed more efficiently – for example, with better speed management – in order to save fuel and reduce emissions.⁸⁷ The SEEMP is based on five pillars: planning, implementation, monitoring, self-evaluation and voluntary reporting.⁸⁸ It applies to all new and existing ships above 400 gross tonnes.⁸⁹ Although the SEEMP is expected to increase environmental awareness among ship owners, it does not provide for compulsory reductions of emissions, and, without other measures, is not an appropriate instrument for tackling the increase in GHG emissions from ships.

Secondly, new ships will be covered by the Energy Efficient Design Index (EEDI),⁹⁰ which imposes obligations on efficiency improvements for ships above 400 gross tonnes built after January 2013 or delivered after July 2015.⁹¹ They will have to improve energy efficiency per mile by 10% in 2013, by 20% in 2020 and by 30% after 2025.⁹² This measure is expected to save 45-50 MT per year by 2020 – a reduction of 4-

⁸² *Ibidem*, Regulation 12. The Second IMO GHG Study (*cit. note 7*) notes that CFC emissions were reduced by 98%, HCFC by 78% and HFC by 315% between 1997 and 2006.

⁸³ *Ibidem*, Regulation 15.

⁸⁴ RESOLUTION MEPC.203(62), Amendments to the annex of the Protocol of 1997 to amend the international convention for the prevention of pollution from ships, 1973 as modified by the Protocol of 1978 relating thereto, 15 July 2011.

⁸⁵ IMO, “Second GHG...”, *cit. note 7*.

⁸⁶ Regulation 22, Annex VI to the MARPOL Convention.

⁸⁷ IMO, Ship Energy Efficiency Management Plan, available at: <<http://www.shippingandco2.org/SEEMP.htm> retrieved on 18.02.2012>.

⁸⁸ LLOYD’S REGISTER, *Implementing a Ship Energy Efficiency Management Plan: guidance for ship-owners and operators*, (November 2011), p. 2

⁸⁹ A SEEMP is required to be kept on board and compliance is demonstrated by an International Energy Efficiency Certificate (IEEC). IMO has provided ships with guidelines to implement SEEMP: IMO, MEPC.1 / Circ 683 Guidance for the development of a ship energy efficiency management plan, 17 August 2009.

⁹⁰ Regulation 21 of Annex VI to the MARPOL Convention and Guidelines MEP 1/Circ 681 Interim Guidelines on the method of calculation of the energy efficiency design index for new ships, 17 August 2009.

⁹¹ Some companies, such as the German Hapag-Lloyd have decided voluntarily to certify their whole fleet according to EEDI in advance. Source: *Hapag-Lloyd*, “Up to 27% reduction in CO2 emissions: Hapag-Lloyd a trailblazer for the new EEDI”, 27 February 2012, available at: http://www.hapag-lloyd.com/en/press_and_media/press_release_page_23940.html retrieved on 04.03.2012.

⁹² These are average figures. In fact, the emissions reduction depends on the type and size of the vessel.

5% of global shipping emissions. Nevertheless, developing countries have obtained a 6-and-a-half-year exemption, which makes it likely that new ships built in developed countries will be flagged even more often under developing countries.⁹³ In addition, only 68 countries have ratified Annex VI to the MARPOL Convention,⁹⁴ which gives operators the opportunity to flag their vessels under more than 120 countries where these modest emissions requirements do not apply.

Furthermore, taking into account that the average life age of the world fleet is 30 years,⁹⁵ the measure will not be fully applicable until 2043 (June 2049 in developing countries), which renders IMO's reduction predictions too optimistic. What is more, this delay is an incentive for ship-owners to postpone the renewal of its fleet as much as possible, so the life of old and polluting vessels will be extended even more.

At IMO's MEPC 63 in March 2012, the question of establishing a market-based system was discussed,⁹⁶ thanks to European pressure, but no agreement was reached and talks were postponed until October.⁹⁷

In conclusion, even if these developments are to be welcomed, since they have made shipping "the first industry with global climate standards,"⁹⁸ further action, such as a global market based mechanism,⁹⁹ is needed if a real reduction in carbon emissions from ships is to be achieved.

In addition to the MARPOL Convention, there are some regional agreements, concluded by the EU or some Member States and third countries, which deal with

⁹³ TRANSPORT AND ENVIRONMENT, "Shipping becomes the first industry with global climate standard", 20 July 2011.

⁹⁴ IMO, Status of Conventions on 31 March 2012, available at: <<http://www.imo.org/About/Conventions/StatusOfConventions/Pages/Default.aspx>>, retrieved 22 April 2012.

⁹⁵ TRANSPORT AND ENVIRONMENT, "Shipping becomes...", *cit.* note 93

⁹⁶ IMO MEPC 63rd, "Market-based measures for greenhouse gases from ships on agenda as IMO Marine Environment Protection Committee meets", 22 February 2012, available at: <<http://www.imo.org/MediaCentre/PressBriefings/Pages/07MEPC63preview.aspx>>, retrieved 4 March 2012

⁹⁷ "IMO set to collide with EU over vessel CO2 emissions" *Reuters*, 3 March 2012, available at <<http://www.reuters.com/article/2012/03/03/shipping-carbon-idUSL5E8E23O420120303>> retrieved 04.03.2012.

⁹⁸ TRANSPORT AND ENVIRONMENT, Shipping becomes...", *cit.* note 93.

⁹⁹ CE DELFT, "A global maritime emissions trading system", January 2010, Delft, p. 82.

marine pollution, but they do not provide for measures to reduce atmospheric pollution from ships.¹⁰⁰

2. Enforcement

Even though a proposal was made by the European Commission in 2002,¹⁰¹ the European Union is not yet a party to the International Maritime Organization. Article 4 of the Convention on IMO restricts membership to States. The procedure to be followed to become a member depends on whether the applicant is a UN or a non-UN member.

Since the EU is not an IMO party, it has not ratified the MARPOL Convention either, even though it is internally competent to take measures for the fulfilment of the obligations under the Convention. Moreover, the theory of succession of obligations, first and (so far) only used by the CJEU in *International Fruit Company*,¹⁰² is not applicable to the MARPOL Convention, because:

“in the absence of a full transfer of the powers previously exercised by the Member States to the Community, the latter cannot, simply because all those States are parties to Marpol 73/78, be bound by the rules set out therein.”¹⁰³

The MARPOL Convention cannot be regarded as a codification of international customary law either.¹⁰⁴ Therefore, the same result as for the Chicago Convention in the *ATAA case* applies here¹⁰⁵: the MARPOL Convention is not internationally binding upon the EU,¹⁰⁶ and, as a consequence, the first condition for direct effect is not met. In conclusion, the MARPOL Convention cannot be invoked before the CJEU to seek a declaration of invalidity of EU secondary law.

This line of reasoning may be criticised, arguing that the CJEU should ascertain the EU's competence on an article-by-article basis instead of a treaty-basis. The Court's

¹⁰⁰ See, for example, the Bucharest Convention for the Black Sea, 1992 or the Barcelona Convention for the Mediterranean, 1976.

¹⁰¹ Recommendation from COM to Council to open and conduct negotiation with IMO and ICAO on accession by the European Community (Doc 7826/02).

¹⁰² Joint Cases 21 to 24/70 *International Fruit Company and others v. Commission* [1971] ECR 411.

¹⁰³ Case C-308/06 *International Association of Independent Tanker Owners v Secretary of State for Transport* [2008] OJ C183/2, para 49.

¹⁰⁴ *Idem*, para 51. See also AG Kokott Opinion in that case, delivered on 20 November 2007, para 39.

¹⁰⁵ Case C-366/10, *cit.* note 3, para 71.

¹⁰⁶ See also Case 379/92 *Peralta* [1994] ECR I-3453, para 16.

reasoning has the consequence that States could be held internationally liable for breaching international treaties for whose fulfilment they are no longer competent any more.

A second possibility, at least a theoretical one, would be to invoke the derogation from the principle of primacy provided in article 351 of the Treaty on the Functioning of the European Union (TFEU) in relation to international obligations contracted by Member States prior to accession. Annex VI to the MARPOL Convention, where the international measures fighting air pollution from ships are provided for, entered into force on 19 May 2005.¹⁰⁷ However, the specific measures regulating GHG emissions will not enter into force until 1 January 2013.¹⁰⁸ Since Croatia has ratified the MARPOL Convention, comprising its Annex VI, and is expected to become a Member of the EU by 1 July 2013,¹⁰⁹ the MARPOL Convention and its amendments would be an international obligation arising from an agreement concluded before accession.¹¹⁰ If the inclusion of shipping in the EU ETS were deemed to be contrary to the MARPOL Convention, Croatia should, in principle, be able to invoke art.351 TFEU to derogate from this EU law obligation and to apply the international agreement. However, the CJEU has followed an extremely restrictive line with regards to article 351¹¹¹ and it is submitted that in a case such as the present one, the Court will probably dismiss the action by artificially and arbitrarily distinguishing between succession of obligations and successions of relations.¹¹² It would consider that there has been a succession of

¹⁰⁷ International Maritime Organization, “Status of Conventions summary”, available at: <<http://www.imo.org/About/Conventions/StatusOfConventions/Pages/Default.aspx>>, last retrieved on 06 June 2012.

¹⁰⁸ International Maritime Organization, “List of amendments expected to enter into force this year and in the coming years”, available at: <<http://www.imo.org/About/Conventions/Pages/Action-Dates.aspx>>, last retrieved on 06 June 2012.

¹⁰⁹ Article 3(3) of the Treaty between the Member States of the European Union and the Republic of Croatia, concerning the accession of the Republic of Croatia to the European Union [2008] OJ L 112/10.

¹¹⁰ Assuming that by “the day of accession” it is to be understood the day when a country joins the Union (July 2013 in the Croatian case) and not the date when the Accession Agreement is signed (June 2008).

¹¹¹ See, for example, C-10/61 *Commission v. Italy* [1962] ECR 7; C-158/91 *Ministere Public et Direction de Travail et de l'Emploi v Levy* [1993] ECR I-4287; C-62/98 *Commission v. Portugal* [2000] ECR I-05171; C-205/06 *Commission / Austria* [2009] ECR I-1301, paras 42-43; C-467/98 *Commission v. Denmark (Open Skies)* [2002] ECR I-9519, paras 59-61; cf. MANZINI, P., “The priority of pre-existing Treaties of EC Member States within the framework of international law”, *European Journal of International Law*, Vol. 12 No. 4, 2001, pp. 781-792.

¹¹² See Case 812/79 *Attorney General v. Burgoa* [1980] ECR 2787, paras. 8-20; Joint cases 180 and 266/80 *Crujeiras Tome* [1981] ECR 2997, para. 20; Case 181/80 *Arbelaiz-Emazabel* [1981] ECR 2961, paras. 10 and 30-31; c.f. CHURCHILL, R.R. & FOSTER, N.G., “European Community Law and Prior

relations with regards to air pollution from ships, but not a succession of obligations, so the EU is not bound by MARPOL but Member States are no longer competent to fulfil the obligations contracted in MARPOL.

Even if the EU is not a party to the MARPOL Convention and its provisions cannot be enforced before the CJEU, and considering that it is unlikely that the enforcement mechanisms of IMO could be used to impose sanctions upon Member States,¹¹³ the fact remains that Member States are still bound by the Convention and it is important to know whether they act in conformity with the international obligations they have contracted.

3. Analysis of the legality of the EU measure

For the purposes of this article the relevant provision is the MARPOL Convention, whose Annex VI will regulate GHG from ships from January 2013. As has been demonstrated in the first section of the MARPOL analysis, this regulation seeks to establish minimum requirements concerning ship design and ship management. These requirements do not establish any reduction objectives, nor do they impose any limits on the total emissions a ship delivers. In this regard, the international obligations are obligations of means, not of result, which cannot in any case be deemed to constitute total harmonization.

MARPOL measures in general, and the SEEMP and EEDI in particular, constitute minimum harmonization standards beyond which the Parties can legislate. To mention a recent example, parliament proposed to unilaterally increase the sulphur limits set out by Regulation 14 in the EU, although the council finally managed to hold it back.¹¹⁴

Treaty Obligations of Member States: the Spanish Fishermen's Cases", *International and Comparative Law Quarterly*, (1987) Vol. 36, Issue 03, pp. 504-524.

¹¹³ See article 69 of the Convention on the International Maritime Organization, 1948.

¹¹⁴ Regulation 14 of Annex VI to the MARPOL Convention imposes the following limits for the sulphur content of any fuel oil used on board ships: 4.50% m/m prior to 1 January 2012; 3.50% m/m on and after 1 January 2012; and 0.50% m/m on and after 1 January 2020. These limits are derogated in the so-called "Emissions Control Areas", where the maximum sulphur content is more limited: 1.50% m/m prior to 1 July 2010; 1.00% m/m on and after 1 July 2010; and 0.10% m/m on and after 1 January 2015. The European Parliament called for a general 0.5% limit in all areas by 2015 and the Commission defended a 0.1% limit in all areas for 2020, although in its proposal, it just transposed IMO limits: Proposal for a Directive of the European Parliament and of the Council amending Directive 1999/32/EC as regards the sulphur content of marine fuels, SEC(2011) 918 final, pp. 9 and 13; for the Parliament proposal, see: "Parliament calls for tough limits on maritime pollution", *European Voice*, 16 February 2012; finally, the Council succeeded in watering down the proposal and MARPOL sulphur limits were not reduced:

Another example is the possibility of criminal responsibility for accidental sea pollution casualties, which is not provided for by MARPOL, but which was adopted in the EU following pressure from the Spanish Government after the Prestige accident.¹¹⁵ This case led to the abovementioned *Intertanko* judgment,¹¹⁶ in which the AG and the CJEU had the opportunity to clarify the relation between the MARPOL Convention and EU law and they concluded that Directive 2005/35/EC established more stringent requirements, insofar as it permitted that persons other than the master and the owner of the vessel could be held liable for discharges resulting from damage and it permitted those persons to be judged not only in case of intentional discharge, but also when serious negligence had occurred.

With regards to the harmonization established by MARPOL, AG Kokott pointed out that there could be complete harmonization in the sea areas regulated by the United Nations Convention on the Law of the Sea (UNCLOS), but this obligation derived from a remission to UNCLOS, not from MARPOL itself.¹¹⁷ With respect to the situation in which only the MARPOL Convention applied,¹¹⁸ she held:

“It would therefore be going too far to claim, (...) that stricter protective provisions are possible only where Marpol 73/78 makes express provision for them. Even though the contracting States were unable to agree on such stricter rules, (...) it by no means follows that in Marpol 73/78 they agreed on a definitive standard of protection for all areas of the sea.”¹¹⁹

“Europe tackles sulphur emissions from ships”, *Euractiv*, 24 May 2012, available at: <http://www.euractiv.com/energy-efficiency/europe-cracks-sulphur-emissions-news-512957>, last retrieved on 06 June 2012; see also: TRANSPORT & ENVIRONMENT, “Sulphur in marine fuels”, 25 January 2012, available at: <http://www.transportenvironment.org/publications/sulphur-marine-fuels>, last retrieved on 06 June 2012

¹¹⁵ Directive 2005/35/EC of the European Parliament and the Council, of 7 September 2005, on ship-source pollution and on the introduction of penalties for infringements [2005] OJ L.255/11; see also “EU breaks with MARPOL and votes to criminalise accidental sea pollution casualty”, *Mundo Marítimo*, 22 June 2004, available at: <http://www.mundomaritimo.cl/noticias/eu-breaks-with-marpol-and-votes-to-criminalise-accidental-sea-pollution-casualty>, last retrieved on 06 June.2012

¹¹⁶ Case 308/06, *cit.* note 103.

¹¹⁷ AG Kokott Opinion in *Intertanko*, *cit.* note 104, para 122.

¹¹⁸ Mainly the territorial sea, where UNCLOS does not limit the action of States.

¹¹⁹ AG Kokott Opinion in *Intertanko*, *cit.* note 104, para 133.

Regrettably, the CJEU missed the opportunity to clarify the relationship between the MARPOL Convention and EU law, finishing its reasoning when it found that the MARPOL Convention could not be a criterion for the validity of EU secondary law.¹²⁰

Lacking further evidence, the author agrees with AG Kokott that the MARPOL Convention does not establish complete harmonization measures unless it expressly says so.

As far as shipping GHG emissions are concerned, the wording of the new Regulations 21 and 22 of Annex VI supports the statement that MARPOL merely establishes minimum harmonization. For example, in Regulation 21 (EEDI), para 5, a minimum power for propulsion is fixed, but nothing precludes a higher requirement.¹²¹ Moreover, nothing in the succinct wording of Regulation 22 suggests that further measures on shipping emissions are prohibited.

Therefore, any EU regulation on GHG emissions from ships will have to allow vessels to comply with the SEEMP and EEDI requirements, but it can also fix more stringent requirements. Since the inclusion of shipping emissions in the EU ETS would impose an obligation of result, setting GHG emission reduction objectives, not of means, would not prevent vessels from reducing their emissions by having a SEEMP on board and by fulfilling the EEDI requirements. On the contrary, the inclusion of shipping in the EU ETS would reinforce the importance of EEDI and SEEMP, which could become useful tools for reducing emissions and selling EU carbon allowances.

In conclusion, the MARPOL Convention is not binding upon the EU but, even if it were, it would not be violated by the inclusion of shipping in the EU ETS.

¹²⁰ C-308/06, *cit.* note 103, para 52.

¹²¹ The text of the new Regulation 21.5 reads as follows: “For each ship to which this regulation applies, the installed propulsion power shall not be less than the propulsion power needed to maintain the manoeuvrability of the ship under adverse conditions as defined in the guidelines to be developed by the Organization”.

V. UNCLOS

1. International commitments

The United Nations Convention is regarded as the “cornerstone of international maritime law.”¹²² The EU has ratified it,¹²³ together with the Member States. Therefore, the UNCLOS is one of the so-called “mixed agreements”.

Environmental issues are addressed in Part XII of the Convention. As regards provisions on GHG emissions, UNCLOS only provides for a rather general commitment to agree on measures “to prevent, reduce and control pollution of the marine environment from or through the atmosphere.”¹²⁴

Other provisions, such as the right to innocent passage,¹²⁵ the non-discrimination principle,¹²⁶ the principle of “port state enforcement”¹²⁷ and the levies that can be charged to foreign ships¹²⁸ will be discussed when the legality of the EU measure is analysed.

2. Enforcement

The EU is a UNCLOS member, although the CJEU has stated that the Convention lacks direct effect and therefore it cannot be invoked for rendering provisions of EU secondary law invalid.¹²⁹

One way that countries or companies willing to challenge a measure for not complying with UNCLOS can circumvent this limitation could be to rely on the fact that UNCLOS is a mixed agreement and to challenge the part where there is national competence.¹³⁰

¹²² IMO, Shipping becomes...”, *cit.* note 7, p.18

¹²³ Council Decision 98/392/EC of 23 March 1998 concerning the conclusion by the European Community of the United Nations Convention of 10 December 1982 on the Law of the Sea and the Agreement of 28 July 1994 relating to the implementation of Part XI thereof [1998] O.J.L 179.

¹²⁴ Article 212(1) UNCLOS.

¹²⁵ *Ibidem*, Part II Section 3.

¹²⁶ *Ibidem*, article 227.

¹²⁷ *Ibidem*, article 218 (and for atmospheric emissions, art. 222).

¹²⁸ *Ibidem*, article 26.

¹²⁹ Case 308/06, *cit.* note 103, para 64.

¹³⁰ See, for example, Case C-53/96 *Hermès International v FHT Marketing Choice* [1998] I-03603; Case C-431/05 *Merck Genéricos Productos Farmacéuticos* [2007] I-07001.

This would be done before a national court, applying its own principles and rules of interpretation, which could differ from those of CJEU as regards UNCLOS. However, it seems that the EU is at least partially competent to regulate emissions from ships, and the declaration of invalidity of a EU measure in relation to this particular section of UNCLOS needs the exclusive competence of the CJEU,¹³¹ because otherwise the principle of uniformity of EU law could be threatened.

3. Analysis of the legality of the EU measure

As with previous agreements, the material provisions of the Convention will be analysed in order to assess whether EU regulations on carbon emissions from ships will conflict with UNCLOS, since the EU could face dispute settlement proceedings at the International Tribunal of the Law of the Sea in the unlikely event that it agreed to its jurisdiction.¹³²

It is to be noted that when the UNCLOS was negotiated,¹³³ even though a chapter on the marine environment was included, the parties were probably not thinking of carbon emissions leading to climate change,¹³⁴ but rather of gases and liquids delivered by ships that could damage the seas. By adopting a broad definition of “pollution”, some UNCLOS articles could now be used as a basis for the regulation of carbon emissions.¹³⁵ In any case, they would not prevent the EU from acting, but reinforce its arguments, since when it comes to pollution into the atmosphere, unlike pollution from ships,¹³⁶ there is no express obligation to act within the framework of international cooperation.¹³⁷ Therefore, the problems that EU legislation might face in the light of UNCLOS are not of competence, but of content.

The main limit established by UNCLOS is the right to innocent passage, according to which ships are entitled to traverse “that sea without entering internal waters or calling

¹³¹ Case 314/85 *Foto-Frost v. Hauptzollamt Lübeck-Ost* [1987] 04199.

¹³² Article 186 UNCLOS, as it happened with the so-called “Swordfish case” between the EU and Chile.

¹³³ The conference took place between 1973 and 1982.

¹³⁴ DOELLE, M., “Climate change and the use of the dispute settlement regime of the law of the sea Convention”, Dalhousie University, (2005), p. 7.

¹³⁵ For example, articles 194 and 212(1) UNCLOS.

¹³⁶ *Ibidem*, article 211(1).

¹³⁷ *Ibidem*, article 212(1).

at a roadstead or port facility outside internal waters”¹³⁸ and proceed “to or from internal waters or a call at such roadstead or port facility.”¹³⁹ Such a passage is only innocent “so long as it is not prejudicial to the peace, good order or security of the coastal State.”¹⁴⁰ It is highly unlikely that the environment could be included in one of these categories.

An EU ETS would not infringe such provisions because as long as ships are not sanctioned, they will be free to navigate through the exclusive economic zone and the territorial sea of the EU. Only when they call at a port would they be put under the EU carbon emissions legislation.

Secondly, as a consequence of the right to innocent passage, “no charge may be levied upon foreign ships by reason only of their passage through the territorial sea.”¹⁴¹ It is submitted that charges would only be levied for calling at a port, not just for passing by.

Thirdly, UNCLOS provides for non-discrimination of foreign vessels.¹⁴² In regulations such as the one proposed, the same treatment will have to be given to all ships, regardless to their nationality. This is not likely to constitute a problem.

In conclusion, an EU regulation of emissions from ships will not, in principle, be in breach of the UNCLOS.

VI. World Trade Organization (WTO)

1. International commitments

The EU, as a signatory to the WTO Treaties, has committed itself to a series of obligations to liberalize world trade, both in goods and services, which are relevant for the purposes of this article.

The inclusion of shipping under the EU ETS may fall under the WTO provisions in two different ways. First, it can constitute a potential obstacle to the free trade of goods

¹³⁸ *Ibidem*, article 18(1)(a) in relation to article 26.

¹³⁹ *Ibidem*, article 18(1)(b).

¹⁴⁰ *Ibidem*, article 19.

¹⁴¹ *Ibidem*, article 21(1).

¹⁴² *Ibidem*, article 227.

(General Agreement of Trade and Tariffs, GATT) and second, shipping can fall under the provisions that regulate services (General Agreement on Trade of Services, GATS).

2. Enforcement

The EU has succeeded Member States on their obligations under GATT¹⁴³ and it is itself a party to the World Trade Organization, but the Court of Justice has considered that neither GATT¹⁴⁴ nor WTO agreements¹⁴⁵ have direct effect *per se*.¹⁴⁶

3. Analysis of the legality of the EU measure

3.1 GATT

As far as GATT is concerned, it could be argued that shipping is not an ordinary service, but one which plays a key role in international trade of goods.¹⁴⁷ Therefore, GATT would apply to all those ships carrying goods, but not to passenger ships. If GATT were to be triggered, it would still have to be demonstrated that it violates some of its provisions, mainly articles III, V and XI.

¹⁴³ Joint cases 21 to 24/72, *International Fruit Company*, *cit. note* 102, para 15.

¹⁴⁴ *Ibidem*, para 27.

¹⁴⁵ C- 149/96, *Portugal v. Council*, *cit. note* 29, para 47. For a favourable opinion of the Court's judgement, see EECKHOUT, P., "Judicial enforcement of WTO Law in the EU", *Journal of International Economic Law*, (2002). For a dissenting one, see GRILLER, S., "Judicial enforceability of WTO Law in the EU", *Journal of International Economic Law*, 2000.

¹⁴⁶ They can only have direct effect in two situations: first, "where the Community measures refer expressly to the provisions of the WTO Agreement" (Case 70/87 *Fediol v. Commission* [1989] ECR 1781) and "where the [EU] intended to implement a particular obligation assumed in the context of the WTO" (C-69/89 *Nakajima v. Council* [1991] ECR I-2069) *c.f.* KUIJPER, P.J., & BRONCKERS, M., "WTO Law in the European Court of Justice" *Common Market Law Review*, 2005, p. 1313.

¹⁴⁷ According to the International Chamber of Shipping, shipping accounts for 90% of world trade of goods (see <<http://www.marisec.org/shippingfacts/worldtrade/>>). The latest available data show that 7.9 billion tons of cargo were transported by sea in 2010, of which 3.4 billion tons was dry bulk, 3.1 liquid bulk and 1.4 "non-bulk", mainly containers. (IHS FAIRPLAY, *Ships visiting European Ports*, 2011, Sweden, p.6) As for Europe, 70% of foreign trade (50% in terms of value) and 40% of European domestic trade (short-sea shipping) is made by ship (Commission Communication on strategic goals and recommendations for the EU's maritime transport policy until 2018, COM (2009) 8, 21.1.09, p.2).

A. Article III:2: fiscal measures

The inclusion of shipping in the EU ETS could constitute a violation of the national treatment principle provided for in article III of GATT. It would amount to an internal measure, insofar as it applies equally to EU and non-EU ships.¹⁴⁸

The first thing to be determined is whether the EU ETS constitutes a fiscal or non fiscal measure, so article III.2 or III.4 applies.

In order for this to be done, the concept of Border Tax Adjustments must be considered. The Working Party on BTA,¹⁴⁹ which was established to clarify the taxes falling under article III.2, concluded that this provision covers taxes on products¹⁵⁰ (the so-called indirect taxes), but not direct taxes. As regards in-between taxes (so-called *taxes occultes*), a “divergence of views” was noted.¹⁵¹ The Working Party restricted itself to referring to the OECD definition of *taxes occultes*: “consumption taxes on capital equipment, auxiliary materials and services used in the transportation and production of other taxable goods.”¹⁵² Since there is no clear definition of taxes, other elements need to be observed.

Although they are not conclusive, several reasons can be used to argue that the EU ETS does not constitute a fiscal measure, either with respect to carbon emissions or to fuel consumption. First of all, the procedure used to approve the EU ETS Directive and its reforms was article 192(1), not article 192(2), which refers to “provisions primarily of fiscal nature”.¹⁵³ Secondly, as Advocate General Kokott held in relation to taxes under the Chicago Convention, the EU ETS does not have the usual characteristics of a tax:

“Taxes are levied as consideration for a public service used. The amount is set unilaterally by a public body and can be determined in advance. (...) An emissions trading scheme such as the EU scheme, however, is a market-based measure. No provision is made for fees or charges for the acquisition of emission allowances. (...) If emission allowances are subsequently traded in the market

¹⁴⁸ BIRNIE, P., et al, *International Law & the Environment*, OUP, 2009, p. 798.

¹⁴⁹ Report of the Working Party adopted on 2 December 1970 (L/3464).

¹⁵⁰ VAN CALSTER, G., *International & EU Trade law*, Cameron May, 2001, p.419.

¹⁵¹ BIRNE, *International Law...*, *cit.* note 148, p.801.

¹⁵² Report of the Working Party, *cit.* note 149, para 15.

¹⁵³ Article 192(2)(a) TFEU (*ex. Art.* 175(2)(a) TEC).

after their allocation by the competent authorities, the price will in that case also be governed by supply and demand and is not fixed in advance.”¹⁵⁴

Thirdly, the allowances bought are not comparable to a tax, insofar as they can also be sold in the event that they are not needed by the polluting company.¹⁵⁵

Fourthly, according to BIRNIE et al, an emissions charge can be classified as “taxes on resource use”, which:

“are not on products as such, even though they are incurred in connection with the manufacture of products. The GATT would classify these charges as direct taxes paid out of gross revenues not eligible for BTA.”¹⁵⁶

In fact, the inclusion of shipping in the EU ETS would regulate the consequences (emissions) of the use of certain sources of energy (fossil fuels) caused by a particular means of transport (shipping) which plays a major role in the trade of goods. As a result, an empty ship or a ship carrying persons would fall under the same regime as if it carried goods to be sold. Even if it is beyond doubt that it has an impact on goods, the links are not strong enough to qualify this system as a tax on products. Therefore, article III.2 does not apply.

Once it has been determined that the EU ETS is a non-fiscal measure, several possibilities arise. It can either be an internal measure (article III:4), a measure concerning goods in transit (article V) or a measure affecting imports (article XI).

B. Article III:4: non fiscal internal measures

Since the EU ETS has an effect on shipping transport, which is an important means of trading goods, article III:4 could apply, because the EU ETS is an internal measure which applies both to foreign and domestic products. To determine whether such an article has been contravened, discrimination needs to be appreciated.

As far as discrimination is concerned, article III:4 covers both direct and indirect discrimination.¹⁵⁷ Given that the EU regulation is worded with no distinction on nationality, direct discrimination is excluded.

¹⁵⁴ AG Kokott Opinion in C-366/10, *cit.* note 34, paras 214-215. For a similar reasoning by the Court of Justice, see Case C-366/10, *cit.* note 3, paras 141-145.

¹⁵⁵ BARTELS, “The Inclusion...”, *cit.* note 5, p. 9.

¹⁵⁶ BIRNIE, *International Law...*, *cit.* note 148, p. 800.

As far as indirect discrimination is concerned¹⁵⁸ the solution is not so straightforward. It is to be noted that the purpose of the regulation is irrelevant,¹⁵⁹ the only question remaining is its “protective effect”.¹⁶⁰ Following this line of reasoning, environmental concerns such as the polluter pays principle are not prohibited,¹⁶¹ but they cannot be used to avoid compliance with article III:4. It has been rightly noted that this conception is more restrictive than the one adopted by the CJEU as regards indirect discrimination.¹⁶²

Since the EU ETS is a measure that is not clear from either the point of view of international trade or its link with the product, particular difficulties are to be experienced when looking for a comparison. Two different tests can be done, depending on the relation between the products that are being compared. If “alike”, an individual discrimination test can be carried out. If “substitutable or directly competitive”, the cumulative consequences of the measure are assessed.¹⁶³

If two specific products are compared in a case-by-case analysis, it might be found that the EU system amounts to indirect discrimination against foreign goods, since it is more likely that a Chinese product will in fact have to suffer a disadvantage from a regulation which has a greater effect on products that are manufactured a long way from the EU.

On the contrary, if the measure is analysed in general, there is no such protection to domestic goods. First, European goods, either travelling inside a European country, from one European country to another or from Europe to another country outside, will always be transported by a ship falling under the EU regulation, whereas foreign goods will only be caught when entering the EU. Therefore, the system will, if anything, constitute indirect reverse discrimination against goods produced in Europe. Secondly,

¹⁵⁷ See, for example, *United States – Measures affecting alcoholic Malt Beverages*, Report of the Panel, 12 June 1992, DS23/R - 39S/206.

¹⁵⁸ Also referred to as “de facto discrimination”.

¹⁵⁹ *Japan – Alcoholic Beverages*, 4 October 1996, AB-1996-2.

¹⁶⁰ MATSUSHITA, M. et al, *The World Trade Organization: Law, Practice and Policy*, Oxford University Press, 2006, p. 254.

¹⁶¹ *United States – Taxes on Petroleum and certain imported substances*, Report of the Panel, 17 June 1987 (L/6175 - 34S/136), para 5.2.5.

¹⁶² HUDEC, R.E., “GATT/WTO Constraints on national regulation: requiem for an aims and effects test”, 32 *International Law Journal*, 1998, p.633.

¹⁶³ *Chile – Taxes on Alcoholic Beverages* AB-1999-6 para .9; see also, WIERS, J., *Trade and Environment in the EC and WTO*, 2002, p. 159.

there is no necessary link between the headquarters of a company and the origin of the goods that are transported, so even if this measure applied only to European shipping companies or to emissions delivered only in European Seas, foreign goods would fall under the regulation when transported by European ships. Thirdly, although the further away a product is manufactured, the more likely it is that the ships transporting it will deliver more carbon emissions, the decisive criterion is not distance but the emissions released. A solar boat entering the port of Rotterdam from China will have to buy fewer allowances than a coal-powered ship sailing up the Rhine River from Düsseldorf. Fourthly, ships from countries like Albania or Morocco might be more favoured than those from Union territories such as the Canary Islands. Fifthly, Chinese goods to be sold in Europe and European goods to be sold in China will have to pay the same charge, given that they pollute the same.

In conclusion, the system as a whole cannot be deemed to discriminate in favour of European goods.

C. Article V: goods in transit

Another provision that is relevant to WTO law is article V GATT, which regulates the right of transit of goods and vessels carrying such goods. Once again, this provision does not apply to passenger ships. Article V.1 reads as follows:

“Goods (including baggage), and also vessels and other means of transport, shall be deemed to be in transit across the territory of a contracting party when the passage across such territory, with or without trans-shipment, warehousing, breaking bulk, or change in the mode of transport, is only a portion of a complete journey beginning and terminating beyond the frontier of the contracting party across whose territory the traffic passes. Traffic of this nature is termed in this article «traffic in transit».”

It is to be noted that this article refers to “contracting parties” and not to “countries”. As a result, the EU territory must be regarded as a whole for the purposes of article V. This is the most sensible interpretation, because goods manufactured or marketed within the Union can travel freely across its whole territory,¹⁶⁴ as if it were a single country. For these purposes, Brazilian goods arriving at the Port of Vigo and which are to be sold in

¹⁶⁴ Article 34 TFEU; see also Case 120/78 *Rewe v. Bundesmonopolverwaltung für Branntwein* [1979] ECR 649, para 14.

Paris cannot be deemed to be “in transit” between Vigo and Paris. The only chance the EU has to tax these products is when they first reach EU territory. If, on the other hand, the goods were to be sold in Andorra, Article V would be triggered.

It has been argued¹⁶⁵ that Article V only applies to ships in transit, not to port calls. Thus, if the EU measure were to be triggered by calls at European ports, article V would be irrelevant. However, this might not be the correct interpretation of article V. The most common case is that the final destination of the goods is not the country of the port itself, but somewhere else in the continent. The port is just an intermediate stop, and this is why Article V includes “trans-shipment”,¹⁶⁶ that is to say, the unloading of the cargo at the port and the continuation of transportation by road or rail transport. In fact, one of the cases in which Article V was invoked (although solved before reaching the panel), was when the EC tried to annul a provision of the United States’ Cuban Democracy Act of 1992 which denied EC vessels transit through US ports.¹⁶⁷ The same occurred when Chile prohibited¹⁶⁸ unloading swordfish at Chilean ports.¹⁶⁹ Furthermore, the main supporters of article V were landlocked parties.¹⁷⁰ Therefore, it is submitted that article V applies to port calls.

For the limited number of situations in which article V applies, (goods entering EU ports to be sold outside the EU) the 2nd paragraph lays down the criteria that need to be respected. It shall be noted that these criteria apply only to “the routes most convenient for international transit”.¹⁷¹ In such cases, the parties must respect the following:

“No distinction shall be made which is based on the flag of vessels, the place of origin, departure, entry, exit or destination, or on any circumstances relating to the ownership of goods, of vessels or of other means of transport.”¹⁷²

¹⁶⁵ Client Earth, *Legal implications...*, *cit.* note 54, p. 39.

¹⁶⁶ According to the Oxford Dictionary, trans-shipment means: “transfer (cargo) from one ship or other form of transport to another”, Oxford University Press, 2012.

¹⁶⁷ Note of the WTO Secretariat “Article V of the GATT 1994, scope and application” WTO, G/C/W/408, p.7 in relation to case WT/DS38/2, 8 October 1996.

¹⁶⁸ Article 165 of the Chilean Ley General de Pesca y Acuicultura. Case WT/DS193/2, 7 November 2000.

¹⁶⁹ Note of the Secretariat, “Article V...”, *cit.* note 167, p.7.

¹⁷⁰ R.BHALA, *Modern GATT law*, 2005, Thomson, p. 471.

¹⁷¹ Article V(2) GATT.

¹⁷² *Ibidem*.

Unfortunately, no case law has yet been decided in application of article V of GATT.¹⁷³ Similarly to what was the case under article III —although the emissions will be closely related to the place of departure, since the longer the distance to navigate, the most likely emissions would be higher— it should be accepted that the emissions criterion is different from the place of origin criterion.

In any event, it remains to be seen how the EU ETS will be triggered for ships. It is still unclear whether ships that are merely making technical calls will be included, and how much of the freight a vessel must unload in order to fall under the ETS. If it were required to unload all of it, it is very likely that ships would leave the majority of its freight at a European port and the rest at a nearby non-EU port.

D. Article XI: Elimination of quantitative restrictions to imports

Article XI:1 prohibits non-fiscal measures which constitute quantitative restrictions and have a discriminatory effect on imports or exports. The EU ETS could fall under the category of “other measures”, which has been interpreted very broadly by the WTO panels.¹⁷⁴ According to Lorand BARTELS, what is important here is the “restrictive effect, no matter how small”.¹⁷⁵ He considers that including aviation in the EU ETS constitutes a measure equivalent to a quantitative restriction. It is assumed that Mr. BARTELS refers only to the few flights that carry goods and excludes all the flights carrying passengers.

If article XI were to be applicable, including ships in the EU ETS would undoubtedly have an effect on trade, albeit indirect or potential, so article XI:1 would be violated. The main defence for the European scheme in relation to this article lies one stage before, in the issue of whether article XI can be applied at all. It is submitted that the EU ETS is a measure which applies both to domestic and foreign products, not to imports, so article XI cannot be triggered. As Rosa FERNANDEZ EGEA has defended,

¹⁷³ Note of the Secretariat, “Article V...”, *cit. note 167*, p. 7.

¹⁷⁴ See, for example, BARTELS, “The Inclusion...”, *cit. note 5*, p.9; FERNANDEZ EGEA, R., *Comercio de mercancías y protección del medio ambiente*, Marcial Pons, 2008, p. 58.

¹⁷⁵ BARTELS, “The Inclusion...”, *cit. note 5*, p. 10.

on the basis of the Interpretative Note for article III, it seems that when the measure is applicable to foreign and domestic products, article III:4 prevails over article XI.¹⁷⁶

E. Article XX: justifications

In the unlikely event that the measure were to be found contrary to articles III, V or XI of GATT, the measure might still be justified under article XX, paragraphs (b) and/or (g).

Article XX(b) provides for an exception to GATT when a measure is “necessary to protect human, animal or plant life or health”, as long as some requirements, such as transparency and non-arbitrary discrimination, are fulfilled. Taking into account that the effects of greenhouse gases and climate change could in the future pose a risk to animal, plant and human life, article XX(b) may apply. In favour of such an argument, the judgment in *Brazil – Retreated Tyres*, needs to be mentioned. In this case, the Appellate Body held that the contribution to the protection of life and health does not need to be immediate. When a country intends to fight global warming, the effectiveness of the measure can only be assessed in the long term.¹⁷⁷ Therefore, an emission trading system enacted to fight climate change may well fall under article XX(b).

In any event, it would be more difficult to rely on article XX(b), since the EU ETS is not only intended to protect humans, animals or plants but, more generally, to protect the planet.

As a result, it seems that article XX(g) constitutes a much clearer legal basis for defending measures concerning the fight against climate change.¹⁷⁸ It states that a measure can be justified when it aims to conserve “exhaustible natural resources if such measures are made effective in conjunction with restrictions on domestic production or consumption.” The concept of natural resources has been broadly construed so that it even includes “clean air”.¹⁷⁹ According to MATSHUSHITA et al, “under this expansive interpretation, virtually any living or non-living resources, particularly those addressed

¹⁷⁶ FERNÁNDEZ EGEA, *Comercio de mercancías...*, cit. note 174, p.64

¹⁷⁷ *Brazil – Retreated Tyres*, 3 December 2007, WT/DS332/AB/R, para 151.

¹⁷⁸ See, for example, FERNÁNDEZ EGEA, *Comercio de mercancías...*, cit. note 174, p.142.

¹⁷⁹ *United States -Standards for reformulated and conventional gasoline*, 20 May 1996, WT/DS2/AB/R, p. 19.

by multilateral environmental agreements, would qualify.”¹⁸⁰ Moreover, the Appellate Body said in *US-Shrimps* that “Article XX(g) is not “static” in its content or reference but rather, by definition “evolutionary”.”¹⁸¹ In view of all the above, this author agrees with the position of the scholars who have argued that the atmosphere should also be regarded as a “natural resource” for the purposes of article XX(g).¹⁸²

An emission trading scheme is one of the most flexible proportionality test policy options under WTO law, since it introduces market mechanisms that allow companies to buy their allowances when they choose. It enables the appropriate balance to be achieved between fighting climate change and not being too restrictive to economic activity.¹⁸³ As a result, the inclusion of shipping in the EU ETS could, in principle, be justified under article XX (b) or (g).

3.2. GATS

As is the case with aviation,¹⁸⁴ shipping is regulated by a specific Annex to GATS,¹⁸⁵ since no agreement was reached by the parties either at the Uruguay¹⁸⁶ or the Doha¹⁸⁷ Negotiating Rounds. As a result, the Most Favoured Nation Principle in GATS does not apply to maritime transport.¹⁸⁸

¹⁸⁰ MATSUSHITA, *The World Trade...*, cit. note 160, p.797.

¹⁸¹ *US-Import prohibition of certain shrimp products*, 12 October 1998, WT/DS58/AB/R, para 130.

¹⁸² See, for example, GREEN, A., “Climate Change, Regulatory Policy and the WTO: How Constraining are Trade Rules?”, 2005, 8 *Journal of International Economic Law* 143, p. 183; CONDON, B.J., *Environmental Sovereignty and the WTO: Trade Sanctions and International Law*, Hotei, 2006, p. 11; PAUWELYN, “US Federal Climate Policy and competitiveness. Concerns: The Limits and Options of International Trade Law”, *Nicholas Institute for Environmental Policy Solutions*, University of Duke, *Working Paper*, 2007, p.35; HOWSE, R., & ELIASON, A., “Domestic and international Strategies to address climate change: an overview of the WTO legal issues”, in COTTIER, T., et al (eds), *International Trade Regulation and the Mitigation of Climate Change*, Cambridge: Cambridge University Press, 2009, p.61; TRAN, C., “Using GATT, Art XX to justify climate change measures in claims under the WTO Agreements”, 2010, *Environmental and Planning Law Journal*, Vol.27, p.351; MELTZER, “Climate Change...”, cit. note 5, pp.141-142; BARTELS, “The Inclusion...”, cit. note 5, p. 15.

¹⁸³ See, for example, ZAPFEL, P., “Greenhouse gas emissions trading in the EU: building the world’s largest cap-and-trade system”, Chapter 11, in HANS JÜRGENS, B. (ed), *Emissions Trading for Climate Policy: US and European perspectives*, Cambridge University Press, Cambridge, 2005.

¹⁸⁴ Annex XXXVI to GATS.

¹⁸⁵ Annex on Negotiations on Maritime Transport Services to GATS.

¹⁸⁶ *WTO – Trade in Services*, Max Planck Commentaries on World Trade Law, Martinus Nijhoff Publishers, 2008, p. 668.

¹⁸⁷ *Ibidem*, p.679.

¹⁸⁸ Article I, cit. note 185.

Throughout later negotiations, a Ministerial Decision on Negotiations on Maritime Transport Services was adopted,¹⁸⁹ which in para 7 provides for a standstill clause by which:

“no participant shall apply for the period of the extended post-Uruguay Round Negotiations any measure affecting trade in services in such a manner as would improve its negotiating positions and leverage.”¹⁹⁰

The Negotiating group on Maritime Transport Services is in charge of enforcing such a clause.¹⁹¹ In the present case, by including ships in the EU ETS, the EU is not acting to improve its negotiating position, since the measure is a medium-term one¹⁹² that has by no means been adopted only to be abolished soon.

Moreover, the exceptions in Article XIV GATS act in the same way as Article XX in GATT, but this time only one of the relevant grounds is to be found: the necessity “to protect human, animal or plant life or health.”¹⁹³ To date, there is no case law on this article, but the case law on article XX(b) GATT might be useful.¹⁹⁴

In conclusion, it is improbable that GATS could provide a basis for challenging the EU ETS applied to emissions from ships.

VII. PRINCIPLE OF SOVEREIGNTY OVER MARITIME AREAS

1. International commitments

The principle of sovereignty over maritime seas means that the EU, as a body exercising the competences of its Member States, shall respect the sovereignty of other non Member States over their maritime areas. As a consequence, the EU has to limit the scope of its legislation concerning maritime areas to its sovereign space. If there is no link between the EU regulation and the territory to be regulated, the EU would violate this principle.

¹⁸⁹ Negotiating group on Maritime Transport Services, note by the Secretariat, 2 May 1994, TS/NGMTS/W/1.

¹⁹⁰ Max Planck Commentaries, “WTO – Trade...”, *cit.* note 186, p. 675.

¹⁹¹ Note by the Secretariat, *cit.* note 189, para 8.

¹⁹² Phase III of the EU ETS will end by 2020 and the system is expected to continue afterwards.

¹⁹³ Article XIV(b) GATS, the wording of which reads the same as that of Article XX (b) GATT.

¹⁹⁴ VAAN DEN BOSSCHE, P., *The law and policy of the World Trade Organization*, 2008, Cambridge University Press, p. 661.

2. Enforcement

The EU is not only bound by the international treaties it ratifies, but also by the principles of international customary law.¹⁹⁵ However, such principles can only be invoked by individuals if: (1) they are “capable of calling into question the competence of the EU to adopt that act”¹⁹⁶; and (2) they are “liable to affect rights which the individual derives from EU law or to create obligations under EU law in his regard.”¹⁹⁷

Having set these two conditions for invoking such principles, the second of which, according to AG Kokott, is rarely going to be met,¹⁹⁸ the Court of Justice restricts the impact of customary principles, by adding that:

“since a principle of customary international law does not have the same degree of precision as a provision of an international agreement, judicial review must necessarily be limited to the question whether, in adopting the act in question, the institutions of the European Union made manifest errors of assessment concerning the conditions for applying those principles.”¹⁹⁹

This restrictive line of reasoning renders a challenge to the EU ETS under the principle of sovereignty of the maritime areas, but it is very unlikely to be of any consequence.

3. Analysis of the legality of the EU ETS

Although it is a purely theoretical problem, it may be interesting to briefly analyse the extent to which including shipping under the EU ETS conforms to the sovereignty principle.

¹⁹⁵ Article 3(5) TEU. See also Case C-286/90 *Poulsen and Diva Navigation* [1992] ECR I-6019, paras 9 and 10; C-162/96 *Racke* *cit.* note 36, paras 45 and 46; C-366/10 *ATAA*, *cit.* note 3, para 101.

¹⁹⁶ Case C-366/10 *ATAA*, *cit.* note 3, para 107; see also Joined Cases 89/85, 104/85, 114/85, 116/85, 117/85 and 125/85 to 129/85 *Ahlström Osakeyhtiö and Others v Commission* [1988] ECR 5193, paragraphs 14 to 18, and Case C-405/92 *Mondiet* [1993] ECR I-6133, paragraphs 11 to 16.

¹⁹⁷ Case C-366/10 *ATAA* *cit.* note 3, para 107.

¹⁹⁸ AG Kokott Opinion on *ATAA* case, *cit.* note 34, whose para 134 reads as follows: “Even though every principle of customary international law to which the European Union is committed is binding on it under international law, the nature and broad logic of a particular principle might be such that it cannot (or can only to a limited extent) be relied upon within the European Union for the purposes of judicial review of the validity of acts of EU institutions, especially in proceedings brought by natural or legal persons”.

¹⁹⁹ Case C-366/10, *cit.* note 3, para 110.

The principle of State sovereignty applies to land, air space and certain areas of the sea. As far as the sea is concerned, this principle is recognised and developed by UNCLOS,²⁰⁰ where it can be seen that sovereignty is not absolute and that it is regulated differently by States because they all have different competences.²⁰¹ Unlike land, which is all part of State sovereignty, most of the sea remains non-sovereign territory,²⁰² where jurisdiction is exercised by the flag country.²⁰³

The main question as regards the principle of sovereignty is: can a country (or a regional integration organisation) regulate carbon emissions that are caused outside its seas? Before addressing this problem it might also be relevant to acknowledge that if no country can unilaterally regulate emissions caused on the High Seas, and no international agreement is reached, how can the emissions reduction objectives of the Kyoto Protocol be met?

In order to assess the principle of territoriality, a difference must be drawn between three kinds of States: coastal States,²⁰⁴ close to which ships pass by; port States,²⁰⁵ where ships stop; and flag States,²⁰⁶ under which the ships are registered. It is expected that the inclusion of shipping in the EU ETS will be enforced by port States.

The most sovereignty-compliant way of regulating emissions would be to include in the EU ETS all the ships carrying a flag of one of the Member States of the Union. However, if such a regulation were to be enacted, it is likely that many more ships would re-flag under a country outside the ETS. As a result, there would be two alternatives for enforcement: the coastal or the port State. For legal and operational reasons, port calls are a much better option for triggering the EU ETS, as is the case with airlines and airport stops.²⁰⁷

²⁰⁰ See Recital 4 of the Preamble of UNCLOS.

²⁰¹ These areas are: internal waters, ports, territorial sea, archipelagic waters, contiguous zone, straits, exclusive economic zone, continental shelf and high seas.

²⁰² Article 89 UNCLOS.

²⁰³ *Ibidem*, article 94.

²⁰⁴ *Ibidem*, article 220.

²⁰⁵ *Ibidem*, article 218.

²⁰⁶ *Ibidem*, article 217.

²⁰⁷ A foreign carrier will have to buy allowances “in the Member State with the greatest attributed aviation emissions from flights performed by that operator in the base year” Article 18a(1)(b) of Directive 2003/87/EC, *cit.* note 47.

Once it has been determined that the ETS will be triggered by port calls, the following should be borne in mind.

Firstly, vessels call at European ports voluntarily, and if they do not call at a European port, no matter how close they get to the coast, they will not fall under the ETS.

Secondly, the UNCLOS sets a limit on state sovereignty: the EU system cannot regulate “construction, design, equipment or manning” (the so-called “CDEM standards”)²⁰⁸ unless it does so to give effect to “generally accepted international rules or standards,”²⁰⁹ as it is the case with IMO efficiency standards. However, the EU ETS does not regulate the way in which ships reduce carbon emissions, only the objective fact that emissions are released.

Thirdly, regulations with extraterritorial effect have been adopted before in the field of transport, one early example being the Catalan-promoted *Llibre del Consolat del Mar*, dating back to the 14th century. This is now the case, as a recent report shows,²¹⁰ of the scheme that requires ships in EU ports to report on cargoes, no matter where they come from,²¹¹ or of “the regime for maximum sulphur content in fuel for passenger ships in regular traffic to or from an EU port” which includes third country vessels.²¹² The same can be said of the 1990 Convention implementing Schengen, which requires carriers to “take all necessary measures (out of the EU territory) to ensure that an alien carrier by air or sea is in possession of the travel documents required for the entry into the territories of the Contracting Parties.”²¹³ This is also the case of “the tax paid in France on airplane tickets, whose amount is higher for flights going out of the European Union”²¹⁴ or of the port differentiated dues that are in force in some countries or ports.²¹⁵ Moreover, the State of California’s higher sulphur standards applying to all

²⁰⁸ Article 21.1 UNCLOS.

²⁰⁹ *Ibidem*.

²¹⁰ Client Earth, *Legal implications...*, *cit.* note 54, p. 20.

²¹¹ Directive 2002/59/CE of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system [2002] OJ. L 208.

²¹² Directive 2005/33 of the EP and the Council, 6 July 2005, amending Directive 1999/32, [2005] O.J. L 191/59.

²¹³ MAYER, “A defense of...”, 2011, *cit.* note 5, p. 10.

²¹⁴ *Ibidem*

²¹⁵ See, for example, the Environmental Ship Index, created by the World Ports Climate Initiative and which entered into force on 1 January 2011. It ranked ships on a scale from zero to one hundred according to the emissions they released. The idea is to grant reductions in port dues to ships voluntarily

vessels were deemed to be valid by a Californian Court.²¹⁶ According to the above mentioned report:

“The case was dismissed on the basis that though the rules amount to an expansive and even possibly unprecedented state regulatory scheme, the (...) Court found that California has a right to mitigate its environmental problems, which “are themselves unusual and even unprecedented” and that California had “clear justification” for the rules so that general maritime law could not be used to ban a state from exercising its own power to combat severe problems.”²¹⁷

In addition, the Second IMO GHG Study states:

“When an IMO instrument has entered into force, countries that have ratified the instrument can apply it not only to ships of their own flag but to all ships, regardless of flag. Therefore, ships wanting to enter the ports or waters under the jurisdiction of a country that has ratified an IMO instrument will have to abide by that convention, regardless of flag. This is an important principle, commonly referred to as the principle of “no more favourable treatment”. It refers to port States enforcing applicable standards in a uniform manner to all ships in their ports, regardless of flag.”²¹⁸

It could be argued that IMO is a global organisation and, therefore, that the principle is not applicable to regional organisations. However, what this principle entails is that ships coming from a country which has not signed the IMO Treaties would also be submitted to the regulation, because it is the same case as in the EU with non-EU ships.

Fourthly, the principle of territoriality should be balanced with other international principles, such as the “polluter pays” principle. There are two ways of enforcing this principle: either internationally or unilaterally. The first option has been strongly sought

submitting to that program and being graded above a certain number. So far, of the 1,439 ships that were ESI rated, only sixteen scored above 50. In total, nineteen ports had joined the ESI up to November 2012, including some major European ports, such as Rotterdam, Antwerp, Hamburg, Amsterdam or Rome, and important non-EU ports, like Los Angeles, New York, Oslo or Melbourne. Although it is true that this system is a non-compulsory one, it alters the competition rules, conferring advantages to cleaner ships. Going beyond ESI, countries like Sweden have enacted a national-wide differentiated dues system, which takes into account two portions: vessel gross tonnage and the amount of cargo loaded and unloaded. The former is at the same time differentiated in relation to sulphur and nitrous oxide emissions.

²¹⁶ *Pacific Merchant Association v. Goldstene*, 2011, US App. LEXIS 6239 (9th Cir. Mar.28,2011).

²¹⁷ Client Earth, *Legal implications...*, *cit.* note 54, p 26.

²¹⁸ IMO, “Second GHG...”, *cit.* note 7, para 2.32, p. 20.

by the Union but no agreement was reached. Therefore, the only available means is regional action.

Fifthly, there is a sufficient link between the fact regulated and the regulator, which is the entry of foreign ships to EU ports.

Sixthly, the EU regime provides for an exemption to the ETS for airlines (and probably for shipping companies in the future) whose countries have the same regulations on emissions.²¹⁹ Although there is no obligation to avoid double taxation, it shows how the only objective of the EU is to protect the environment, not trade.

In conclusion, there are several elements that suggest that the principle of sovereignty would not be violated by including shipping in the EU ETS.

VIII. BILATERAL AGREEMENTS

In parallel to the multilateral commitments that the EU has acquired, the Union has also ratified bilateral agreements on shipping transport which may clash with the application of the EU ETS to shipping.

1. EC-China Agreement on Maritime Transport

The only²²⁰ specific Maritime Transport Agreement that the EU has so far concluded was signed with China²²¹ in 2002, and entered into force in March 2008.²²² It provides for the principle of non-discrimination to the other party's vessels²²³ and obliges the parties to abstain from adopting legislative or technical measures which could have the effect of discriminating against the other party.²²⁴ Moreover, the Agreement imposes a

²¹⁹ Article 25a(1) of Directive EC, *cit.* note 47.

²²⁰ A similar agreement is being negotiated with India (see EUROPEAN COMMISSION web page: <http://ec.europa.eu/transport/international/bilateral_cooperation/india_en.htm>)

²²¹ Agreement on maritime transport between the European Community and its Member States, of the one part, and the government of the People's Republic of China, 06 December 2002.

²²² Council Decision 2008/143/EC of 28 January 2008 concerning the conclusion of the Agreement on maritime transport between the European Community and its Member States, of the one part, and the Government of the People's Republic of China, of the other [2008] O.J. L46/25.

²²³ *Ibidem*, article 4(1).

²²⁴ *Ibidem*, article 4(3)(c).

duty of cooperation in several areas,²²⁵ one of which is marine pollution²²⁶ (although no reference is made to emissions from ships). In conclusion, no additional obligations are created for the EU by this bilateral treaty compared to WTO law.

The important difference could be enforcement, since WTO law is not directly effective before the CJEU. However, the EC-China agreement is only to be enforced “through diplomatic channels.”²²⁷ In addition, this agreement is only valid for 5 years (until March 2013²²⁸) and it can be denounced by the EU with 6 months advance notice.²²⁹ All these factors prevent the Agreement from becoming a criterion for the validity of EU law.

2. Other agreements

The EU has concluded several general agreements containing specific provisions on free trade and shipping. This is the case of the Association Agreements with Algeria,²³⁰ Chile,²³¹ and Jordan,²³² and of the EC-Bangladesh Cooperation Agreement,²³³ the Economic Partnership Agreement EU-CARIFORUM,²³⁴ the EU Korea Free Trade Agreement,²³⁵ the EU-Russia Partnership and Cooperation Agreement²³⁶ and the Trade, Development and Cooperation Agreement EC-South Africa.²³⁷

²²⁵ *Ibidem*, article 10.

²²⁶ *Ibidem*, article 10(4).

²²⁷ *Ibidem*, article 11(2).

²²⁸ The EU ETS is unlikely to be applied to ships before that date.

²²⁹ Article 12, *cit.* note 222.

²³⁰ Article 34(4)(b) of the Euro Mediterranean Agreement, 10 October 2005, establishing an Association between the European Community and its Member States, of the one part, and the People’s Democratic Republic of Algeria, of the other part. O.J. L265/2.

²³¹ Article 108(1)(c) of the Agreement establishing an association between the European Community and its Member States, of the one part, and the Republic of Chile, of the other part, of 30 December 2002 [2002] OJ L 352/3.

²³² Article 39(2)(b) of the Euro Mediterranean Agreement, 15 May 2002, establishing an Association between the European Communities and their Member States, of the one part, and the Hashemite Kingdom of Jordan, of the other part [2002] O.J. L 129/3.

²³³ Article 4(7) of the Cooperation Agreement, 21 May 1999, between the European Community and the People’s Republic of Bangladesh on partnership and development [1999] O.J. L 118/48.

²³⁴ Article 109(4)(b) of the Economic Partnership Agreement, 30 October 2010, between the CARIFORUM States, of the one part, and the European Community and its Member States, of the other part [2010] O.J. 289/I/3.

²³⁵ Article 7.47(4)(b) of the Free Trade Agreement, 14 May 2011, between the European Union and its Member States, of the one part, and the Republic of Korea, of the other part [2011] O.J. L 127/6.

Although these agreements contain similar provisions to WTO law, their relevance is based on the fact that they are directly effective,²³⁸ entailing that if they were invoked through a preliminary ruling,²³⁹ the CJEU would have to examine the material problems and the issue of discrimination. Nevertheless, as has been stated throughout this article and for the above mentioned reasons, the EU ETS is not a discriminatory measure, but one which applies equally to domestic and foreign vessels and therefore the non-discrimination clauses of the bilateral treaties are not breached.

IX. CONCLUSIONS

In the field of maritime transport, the European Union could (and perhaps should) keep on sailing through the rough sea of emission trading of international transport that it initiated when it included emissions from international commercial flights in the EU ETS. Although politically disputed, this article has tried to demonstrate that legal challenges to the EU ETS are unlikely to succeed for two main reasons.

Firstly, the enforcement of international provisions is extremely difficult. The European Court of Justice has proved itself to be very restrictive when it comes to analysing the legality of an EU measure in the light of international public law. Moreover, the lack of efficient international mechanisms for solving international disputes (UNCLOS, Kyoto Protocol, UNFCCC, MARPOL) or the impossibility of reaching international agreements on material provisions (shipping regulation in WTO) mean that a legal international solution is highly improbable.

Secondly, even if the problem of enforcement can be overcome, the inclusion of shipping emissions in the EU ETS does not clash with any of the international agreements the EU has ratified. The UNFCCC and Kyoto Protocol are not only

²³⁶ Article 39(1)(c) of the Agreement on partnership and cooperation, 28 November 1997, establishing a partnership between the European Communities and their Member States, of the one part, and the Russian Federation, of the other part [1997] O.J. L 327/3.

²³⁷ Article 31(1) of the Agreement on Trade, Development and Cooperation of 4 December 1999 between the European Community and its Member States, of the one part, and the Republic of South Africa, of the other part [1999] L 311/3.

²³⁸ Bilateral agreements concluded by the EU have direct effect, even when they are mixed agreements and there is no reciprocity between the parties. See: Case C-181/73 *Haegeman v. Belgium* cit. note 28, paras 2-6; Case C-104/81 *Hauptzollamt Mainz v. Kupferberg* [1982] ECR 3641, para 18; Case C-18/90 *Kziber* [1991] ECR I-199, para 15; Case C-23/02 *Alami* [2003] ECR I-1399, para 22; Case C-265/03 *Simutenkov* [2005] ECR I-2579, para 29.

²³⁹ Article 267 TFEU.

respected by the EU measure, they are reinforced by such determined compliance with the reduction objectives the EU has committed to. The MARPOL Convention only sets minimum standards and UNCLOS does not prohibit – in fact it even encourages – the regulation of emissions by ships. Furthermore, GATS does not apply to shipping transport yet.

The three most problematic international provisions are GATT, bilateral agreements with no discrimination clauses and the principle of sovereignty over maritime areas. Nevertheless, in this article, it has been shown that none of the GATT provisions would be violated, since the inclusion of ships under the EU ETS constitutes an internal non-fiscal measure which does not discriminate against foreign products. This non-discrimination reasoning is also useful to demonstrate that bilateral agreements have not been breached. As far as the principle of sovereignty is concerned, and in the light of all the considerations above, it seems that there is a sufficient link between the regulated situation and the territory of the European Union.

At the moment of writing, the author is not aware of any final decision on whether shipping is to be included under the EU ETS or a different solution is to be tried (taxes, voluntary schemes, differentiated port dues, excluding foreign ships from the scheme, etc.). However, what this article has attempted to argue is that it should not be the legal aspects of the system which deter the Union from including shipping transport under the EU ETS. Acknowledging that the battle of legality can be won, it is now for the European Institutions to make the politically courageous decision to regulate shipping emissions in an efficient and determined way. To do so, it will once again have to batten down the hatches and withstand the international political pressure driven by selfish and short-term interests.

X. BIBLIOGRAPHY

Official documents

European Commission: Public Consultation for “Including maritime transport emissions in the EU’s greenhouse gas commitment”, 19 January-12 April 2012.

Council Conclusions: Climate finance - follow-up to the Durban Conference 3148th ECONOMIC and FINANCIAL AFFAIRS Council meeting Brussels, 21 February 2012

Proposals by India for inclusion of additional agenda items in the provisional agenda of the seventeenth session of the Conference of the Parties, FCCC/CP/2011/INF.2/Add.1, 7 October 2011.

RESOLUTION MEPC.203(62), Amendments to the annex of the Protocol of 1997 to amend the international convention for the prevention of pollution from ships, 1973 as modified by the Protocol of 1978 relating thereto, 15 July 2011.

Free Trade Agreement, 14 May 2011, between the European Union and its Member States, of the one part, and the Republic of Korea, of the other part [2011] O.J. L 127/6 Commission White Paper “Roadmap to a Single European Transport Area – Towards a competitive and resource efficient transport system” 28 March 2011, COM (2011) 144.

Proposal for a Directive of the European Parliament and of the Council amending Directive 1999/32/EC as regards the sulphur content of marine fuels, SEC (2011) 918.

Report of the CoP serving as the meeting of the Parties to the Kyoto Protocol on its sixth session, held in Cancun from 29 November to 10 December 2010 (FCCC/KP/CMP/2010/12/Add.1).

Preparation of an outcome to be presented to the CoP for adoption at its sixteenth session to enable the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012, Possible elements of the outcome Note by the Chair”, 4 December 2010 (FCCC/AWGLCA/2010/CRP.2)

Report of the CoP on its sixteenth session, held in Cancun from 29 November to 10 December 2010 (FCCC/CP/2010/7/Add.1).

Economic Partnership Agreement, 30 October 2010, between the CARIFORUM States, of the one part, and the European Community and its Member States, of the other part, [2010] O.J. 289/I/3.

IMO, MEPC.1 / Circ 683 Guidance for the development of a ship energy efficiency management plan, 17 August 2009.

Guidelines MEP 1/Circ 681 Interim Guidelines on the method of calculation of the energy efficiency design index for new ships, 17 August 2009.

Commission Communication “Towards a comprehensive climate change agreement in Copenhagen”, COM(2009) 39 final.

Communication on strategic goals and recommendations for the EU’s maritime transport policy until 2018, COM (2009) 8, 21 January 2009.

Preparation of an outcome to be presented to the CoP for adoption at its sixteenth session to enable the full, effective and sustained implementation of the Convention

through long-term cooperative action now, up to and beyond 2012. Possible elements of the outcome, Note by the Chair”, 24 November 2010 (FCCC/AWGLCA/2010/CRP.1).

Directive 2009/29/EC, 5 June 2009, amending Directive 2003/87/EC so as to improve and extend GHG emission allowance trading scheme in the Community, [2009] OJ L140.

Decision 406/2009/EC of the EP and the Council of 23 April 2009 on the effort of MS to reduce their GHG emissions, [2009] O.J. L140.

Directive 2008/101/EC, 19 November 2008, amending Directive 2003/87/EC, so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, [2009] O.J. L 8/3.

MEPC, Legal Aspects of the Organization’s Work on Greenhouse Gas Emissions in the Context of the Kyoto Protocol, 2008.

Council Decision 2008/143/EC of 28 January 2008 concerning the conclusion of the Agreement on maritime transport between the European Community and its Member States, of the one part, and the Government of the People’s Republic of China, of the other part [2008] O.J. L46/25.

Treaty between the Member States of the European Union and the Republic of Croatia, concerning the accession of the Republic of Croatia to the European Union [2008] OJ L. 112/10.

Conclusions of the European Council, 8-9 March 2007, doc 7224/1/07, 2 May 2007.

Euro Mediterranean Agreement, 10 October 2005, establishing an Association between the European Community and its Member States, of the one part, and the People’s Democratic Republic of Algeria, of the other part. O.J. L265/2.

Directive 2005/35/EC of the European Parliament and the Council, of 7 September 2005, on ship-source pollution and on the introduction of penalties for infringements [2005] OJ L.255/11.

Directive 2005/33 of the EP and the Council, 6 July 2005, amending Directive 1999/32, [2005]O.J. L 191/59.

Directive 2003/87 establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC, [2009] O.J. L 140/63
Commission staff working document - Accompanying document to the Proposal for a Directive of the European Parliament and of the Council amending Directive 2003/87/EC so as to include aviation activities in the scheme for greenhouse gas emission allowance trading within the Community - Impact Assessment of the inclusion

of aviation activities in the scheme for greenhouse gas emission allowance trading within the Community, SEC/2006/1684.

Agreement establishing an association between the European Community and its Member States, of the one part, and the Republic of Chile, of the other part, of 30 December 2002 [2002] OJ L 352/3.

Decision 1600/2002/EC of the European Parliament and the Council of 22 July 2002 laying down the Sixth Community Environmental Action Programme [2002] O.J. L.242/1.

Directive 2002/59/CE of the European Parliament and of the Council of 27 June 2002 establishing a Community vessel traffic monitoring and information system [2002] OJ. L 208.

Euro Mediterranean Agreement, 15 May 2002, establishing an Association between the European Communities and their Member States, of the one part, and the Hashemite Kingdom of Jordan, of the other part [2002] O.J. L 129/3.

Council Decision 2002/358/EC of 25 April 2002 concerning the approval, on behalf of the European Community, of the Kyoto Protocol to the United Nations Framework Convention on Climate Change and the joint fulfillment of commitments thereunder [2002] O.J. L 130.

Recommendation from COM to Council to open and conduct negotiation with IMO and ICAO on accession by the European Community (Doc 7826/02).

Ley General de Pesca y Acuicultura. Case WT/DS193/2, Chile, 7 November 2000.

Agreement on Trade, Development and Cooperation of 4 December 1999 between the European Community and its Member States, of the one part, and the Republic of South Africa, of the other part [1999] L 311/3.

Cooperation Agreement, 21 May 1999, between the European Community and the People's Republic of Bangladesh on partnership and development, [1999] O.J. L 118/48.

Council Decision 98/392/EC of 23 March 1998 concerning the conclusion by the European Community of the United Nations Convention of 10 December 1982 on the Law of the Sea and the Agreement of 28 July 1994 relating to the implementation of Part XI thereof [1998] O.J L 179.

Agreement on partnership and cooperation, 28 November 1997, establishing a partnership between the European Communities and their Member States, of the one part, and the Russian Federation, of the other part [1997] O.J. L 327/3.

Kyoto Protocol to the United Nations Framework Convention on Climate Change, 1997.

Council Decision 94/69/EC, of 15 December 1993, concerning the conclusion of the United Nations Framework Convention on Climate change, OJ L 33/13.

Negotiating group on Maritime Transport Services, note by the Secretariat, 2 May 1994, TS/NGMTS/W/1.

United Nations Framework Convention on Climate Change, 1992.

Rio Declaration on Environment and Development, June 1992.

Bucharest Convention for the Black Sea, 1992.

Vienna Convention on the Law of Treaties between States and International Organizations or between International Organizations 1986, Vienna, 21 March 1986.

United Nations Convention on the Law of the Seas, 1982.

Barcelona Convention for the Mediterranean, 1976.

Report of the GATT Working Party adopted on 2 December 1970 (L/3464).

Vienna Convention on the Law of the Treaties, 1969, Vienna, 23 May 1969

Rules of Procedure of the IMO Assembly, Assembly Resolution A.27(II), of 13 April 1961.

Standing Rules of Procedure of the Assembly of the ICAO, DOC 7600/6, adopted by the Assembly in 1952 (Resolution A6-12; Doc 7670) and amended by the Assembly in 1953 (Doc 7409, A7-P/2, p. 42), 1959 (Resolution A12-4; Doc 7998, A12-P/3), 1962 (Resolution A14-1; Doc 8268, A14-P/20), 1971 (Doc 8963, A18-P/16), 1974 (Doc 9119, A21-P/4), 1977 (Doc 9216, A22-P/10), 1980 (Doc 9317, A23-P/12), 1989 (Doc 9550, A27-P/12) and 2007 (Doc 9891, A36-P/9 — in preparation).

Convention on the International Maritime Organization, 1948.

Convention on International Civil Aviation, 1944.

Cases

Court of Justice

Case C-366/10, *Air Transport Association of America*, not yet reported, judgement of 21 December 2011

Case 386/08 *Brita* [2010] ECR I-01289

Case C-127/07 *Société Arcelor Atlantique et Lorraine and Others v. Premier Ministre*,

Ministre de l'Écologie et du Développement durable, Ministre de l'Économie, des Finances et de l'Industrie [2008] ECR I-09895

Case C-308/06 *International Association of Independent Tanker Owners v Secretary of State for Transport* [2008] OJ C183/2

Case C-205/06 *Commission / Austria* [2009] ECR I-1301

Case C-431/05 *Merck Genéricos Productos Farmacéuticos* [2007] ECR I-07001

Case C-265/03 *Simutenkov* [2005] ECR I-2579

Case C-23/02 *Alami* [2003] ECR I-1399

Case C-467/98 *Commission v. Denmark (Open Skies)* [2002] ECR I-9519

Case C-62/98 *Commission v. Portugal* [2000] ECR I-05171

Case 162/96 *Racke* [1998] ECR I-03655

Case C-149/96 *Portugal v. Council* [1999] ECR I – 8425

Case C-53/96 *Hermès International v FHT Marketing Choice* [1998] ECR I-03603

Case T-115/94 *Opel Austria v. Council* [1997] ECR II-43

Case C-405/92 *Mondiet* [1993] ECR I-6133

Case 379/92 *Peralta* [1994] ECR I-3453

Case C-312/91 *Metalsa* [1993] ECR I-3751

Case C-158/91 *Ministere Public et Direction de Travail et de l'Emploi v Levy* [1993] ECR I-4287

Opinion 1/91 *of the Court of Justice on the EEA Agreement* [1991] ECR I-6079

Case C-286/90 *Poulsen and Diva Navigation* [1992] ECR I-6019

Case C-18/90 *Kziber* [1991] ECR I-199

Case C-69/89 *Nakajima v. Council* [1991] ECR I-2069

Case 70/87 *Fediol v. Commission* [1989] ECR 1781

Case 314/85 *Foto-Frost v. Hauptzollamt Lübeck-Ost* [1987] ECR 4199

Joined Cases 89/85, 104/85, 114/85, 116/85, 117/85 and 125/85 to 129/85 *Ahlström Osakeyhtiö and Others v Commission* [1988] ECR 5193

Case C-104/81 *Hauptzollamt Mainz v. Kupferberg* [1982] ECR 3641

Case 181/80 *Arbelaiz-Emazabel* [1981] ECR 2961

Joint cases 180 and 266/80 *Crujeiras Tome* [1981] ECR 2997

Case 812/79 *Attorney General v. Burgoa* [1980] ECR 2787

Case 120/78 *Rewe v. Bundesmonopolverwaltung für Branntwein* [1979] ECR 649

Case 112/77 *Töpfer v Commission* [1978] ECR 1019

Case 181/73 *Haegeman* [1974] ECR 449

Joint Cases 41 to 44/70 *International Fruit Company and others v. Commission* [1971] ECR 411

Case C-10/61 *Commission v. Italy* [1962] ECR 7

WTO

Brazil – Retreated Tyres, 3 December 2007, WT/DS332/AB/R

Chile – Taxes on Alcoholic Beverages AB-1999-6

US-Import prohibition of certain shrimp products, 12 October 1998, WT/DS58/AB/R

Japan – Alcoholic Beverages, 4 October 1996, AB-1996-2

United States -Standards for reformulated and conventional gasoline, 20 May 1996, WT/DS2/AB/R

United States – Measures affecting alcoholic Malt Beverages, Report of the Panel, 12 June 1992, DS23/R - 39S/206

United States – Taxes on Petroleum and certain imported substances, Report of the Panel, 17 June 1987 (L/6175 - 34S/136)

Others

Pacific Merchant Association v. Goldstene, 2011, US App. LEXIS 6239 (9th Cir. Mar.28, 2011)

Books, reports and articles

ATHEN, M., "Hinterm Horizont geht's weiter! Einbeziehung des Luftverkehrs in den Handel mit Treibhausgasemissionszertifikaten", *Europäische Zeitschrift für Wirtschaftsrecht*, 2012, pp.337-341

BARTELS, L., "The Inclusion of Aviation in the EU ETS: WTO Law considerations", *International Centre for Trade and Sustainable Development, Trade and Sustainable Energy Series No. 6*, April, 2012

BEYERLIN, U. and MARAUHN, T., *International Environmental Law*, Hart Publishing, 2011

BIRNIE, P., et al, *International Law & the Environment*, Oxford University Press, 2009

CE DELFT, *Technical support for European action to reducing Greenhouse Gas Emissions from international maritime transport*, Delft, 2009, TENDER DG ENV/C3/ATA/2008/0016

— *A global maritime emissions trading system*, January 2010, Delft

CHURCHILL, R.R. & FOSTER, N.G., "European Community Law and Prior Treaty Obligations of Member States: the Spanish Fishermen's Cases", *International and Comparative Law Quarterly*, 1987, Vol. 36, Issue 03, pp. 504-524

CLEMENT-WILZ, L., "Le système européen d'échange de quotas d'émission de gaz à effet de serre face aux règles du droit international", *Revue des affaires européennes*, 2011, pp.859-867.

CLIENT EARTH, *Legal implications of EU Action on GHG Emissions from the International Maritime Sector*, November 2011

CONDON, B.J., *Environmental Sovereignty and the WTO: Trade Sanctions and International Law*, Hotei, 2006

DOELLE, M., "Climate Change and the use of the dispute settlement regime of the law of the sea Convention", *Dalhousie University*, 2005

EECKHOUT, P., "Judicial enforcement of WTO Law in the EU", *Journal of International Economic Law*, 2002

FERNANDEZ EGEA, R., *Comercio de mercancías y protección del medio ambiente*, Marcial Pons, 2008

— “The flexible mechanisms to combat climate change: a critical view of their legitimacy”, *Revista Catalana de Dret Ambiental*, Vol 2, num. 2, 2011

GEHRING, M., “Air Transport Association of America v. Energy Secretary before the European Court of Justice: Clarifying Direct Effect and Guidance for Future Instrument Design for a Green Economy in the EU”, *Review of European Community & International Environmental Law (RECIEL)*, Forthcoming 2012

GREEN, A., “Climate Change, Regulatory Policy and the WTO: How Constraining are Trade Rules?” (2005) 8 *Journal of International Economic Law* 143

GRILLER, S., “Judicial enforceability of WTO Law in the EU” *Journal of International Economic Law*, 2000

HAVEL, B.F. & MULLIGAN, J.Q., “The Triumph of Politics: Reflections on the Judgment of the Court of Justice of the European Union: validating the inclusion of non-EU airlines in the Emission Trading Scheme”, *Air and Space Law*, Vol. 37, No. 1, 2012, pp. 3-33

HOWSE, R., & ELIASON, A., “Domestic and international Strategies to address climate change: an overview of the WTO legal issues”, in COTTIER, T., et Al (eds), *International Trade Regulation and the Mitigation of Climate Change*, Cambridge: Cambridge University Press, 2009

HUDEC, R.E., “GATT/WTO Constraints on national regulation: requiem for an aims and effects test”, 32 *International Law Journal*, 1998

IHS FAIRPLAY, *Ships visiting European Ports*, 2011, Sweden

IMO, *Second GHG Study*, 2009

— Ship Energy Efficiency Management Plan, available at: <<http://www.shippingandco2.org/SEEMP.htm>>, retrieved on 18.02.2012

KREMLIS, M. “The inclusion of shipping industry in the EU ETS”, *European Energy and Environmental Law Review*, June 2010

KUIJPER, P.J., & BRONCKERS, M., “WTO Law in the European Court of Justice” *Common Market Law Review*, 2005

KULOVESI, K., “Make Your Own Special Song, Even if Nobody Else Sings Along: International Aviation Emissions and the EU Emissions Trading Scheme”, *Climate*

Law, Vol. 2, No. 4, 2011

LLOYD'S REGISTER, *Implementing a Ship Energy Efficiency Management Plan: guidance for ship-owners and operators*, November 2011

MANZINI, P., "The priority of pre-existing Treaties of EC Member States within the framework of international law", *European Journal of International Law*, 2001 Vol. 12 Num. 4, 2001, pp. 781-792

MAYER, B., "A defense of the EU Emission Trading Scheme in aviation activities", *National University of Singapore, Centre of International Sustainable Development Law*, Working Papers Series, November 2011

MATSUSHITA, M. et al, *The World Trade Organization: Law, Practice and Policy*, Oxford University Press, 2006

MAYER, B., "Case C-366/10, Air Transport Association of America and Others v. Secretary of State for Energy and Climate Change", *Common Market Law Review*, vol 49, n 3, 2012, pp.1113-1139

MAX PLANCK COMMENTARIES ON WORLD TRADE LAW, *WTO – Trade in Services*, Martinus Nijhoff Publishers, 2008

MELTZER, J., "Climate Change and Trade – The EU Aviation Directive and the WTO", *Journal of International Economic Law* 15, 2012, 1, pp. 111-156

MULLER, B., "From confrontation to collaboration? CBDR and the EU ETS aviation dispute with developing countries" *Oxford Energy and Environment Brief*, February 2012

NKUEPO, H.J., "EU ETS Aviation Discriminates Against Developing Countries", *Africa's Trade Law*, Issue: 7, April, 2012, p.1-6

OXFAM/WWF, *Out of the Bunker: time for a fair deal on carbon emissions*, 8 September 2011

PAUWELYN, "US Federal Climate Policy and competitiveness. Concerns: The Limits and Options of International Trade Law", *Nicholas Institute for Environmental Policy Solutions*, Duke University, *Working Paper*, 2007.

PROUTEAU, J., "Gaz à effet de serre et activités aériennes : le système d'échange de quotas au prisme du droit international entre compatibilité juridique et affrontement

politique”, *Revue Lamy droit des affaires*, 2012, n° 71 p.75-78.

RINGBOM, H., “Global problem – Regional solution? International Law Reflections on an EU CO2 Emissions Trading Scheme for Ships”, *The International Journal of Marine and Coastal Law*, 2011, 26, p.619

SCOTT, J., & RAJAMANI, L., “EU Climate change Unilateralism: International Aviation in the European Emissions Trading Scheme”, *European Journal of International Law*, Vol. 23, No. 2, 2012, pp.1-31

TRAN, C., “Using GATT, Art XX to justify climate change measures in claims under the WTO Agreements”, *Environmental and Planning Law Journal*, 27, 2010, pp.346-350

TRANSPORT AND ENVIRONMENT, “Shipping becomes the first industry with global climate standard”, 20.07.2011

TUNTENG, V. et al., “Legal Analysis on the inclusion of civil aviation on the European Union Emissions Trading System”, *Centre for International Sustainable Development Law, Brief*, 2012

United Nations Conference on Trade and Development, *Review of Maritime Transport*, 2008

VAAN DEN BOSSCHE, P., *The law and policy of the World Trade Organization*, 2008, Cambridge University Press

VAN CALSTER, G., *International & EU Trade law*, Cameron May, 2001

WIERS, J., *Trade and Environment in the EC and WTO*, 2002

ZAPFEL, P., “Greenhouse gas emissions trading in the EU: building the world’s largest cap-and-trade system”, Chapter 11, in HANSJÜRGENS, B. (ed), *Emissions Trading for Climate Policy: US and European perspectives*, Cambridge University Press: Cambridge, 2005.