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Katelyn E. Ciolino

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UP IN THE AIR: THE CONFLICT SURROUNDING THE EUROPEAN UNION'S AVIATION DIRECTIVE AND THE IMPLICATIONS OF A JUDICIAL RESOLUTION

INTRODUCTION

With a new regulatory program for aviation industry emissions, the European Union has brought the tension between trade and climate change efforts to a head. The European Union's measure, the Aviation Directive ("Directive"), incorporates aviation into the EU Emissions Trading Scheme ("EU ETS").¹ Under the Directive, aircraft operators must purchase greenhouse gas ("GHG") emission² allowances for any flight that lands or takes off from an aerodrome³ in the EU.⁴

The EU incorporated aviation activities into the EU ETS based on its concern that GHG emissions from aviation ("aviation emissions") would frustrate emission reductions made in other sectors.⁵ Aviation is a quickly growing industry, with 2.8

^{1.} The European Union Emissions Trading Scheme ("EU ETS") is a greenhouse gas emission allowance trading system that covers GHG emissions from activities in the power and industry sectors. *European Commission Report on The EU Emissions Trading System (EU ETS)* (Jan. 2013), available at

http://ec.europa.eu/clima/publications/docs/factsheet_ets_2013_en.pdf. The Aviation Directive ("Directive") is part of a 2008 amendment to the EU ETS and came into effect on January 1, 2012. Council Directive 2008/101/EC, 2009 O.J. (L 8) (EU).

^{2.} Aviation emissions consist of carbon dioxide (" CO_2 "), water vapor, nitrous oxide, sulfur oxide, hydrocarbons, and black carbon particles. *Environmental Report 2010 – Aviation and Climate Change*, INT'L CIVIL AVIATION ORG. [ICAO] 38 (2010), http://www.icao.int/environmental-protection/Documents/Publications/ENV_Report_2010.pdf [hereinafter *ICAO Environmental Report 2010*]. The EU ETS regulates different greenhouse gas emissions for different sectors; it regulates CO_2 from commercial aviation and energy-intensive production industries, nitrous oxide ("N₂O") from industries that produce certain acids, and perfluorocarbons ("PFCs") from the aluminum industry. *European Commission Report on The EU Emissions Trading System (EU ETS)*, supra note 1.

^{3.} An aerodrome is any site at which a flight arrives or departs. Council Directive 2008/101/EC, *supra* note 1, at annex 1.

^{4.} Council Directive 2008/101/EC, supra note 1, at 3, 5, 17.

^{5.} Id. at 10–11.

billion passengers transported by air in 2011, a number that is expected to increase to 5 billion passengers by 2030.⁶ Aviation is also responsible for 35% of international trade by value, transporting US\$5.3 trillion in cargo annually.⁷ While emissions from aviation currently contribute 2% of global carbon dioxide ("CO₂") emissions, this figure is projected to increase 300-700% by 2050.⁸

In the face of failure within the International Civil Aviation Organization ("ICAO")—the international standard setting body for aviation—to regulate aviation emissions, the EU implemented the Directive to incorporate these emissions into the EU ETS.⁹ With the recognition that an EU-only program would be ineffective to address the aviation industry's overall impact on climate change, the EU included the regulation of emissions from non-EU airlines in the Directive for the complete length of flights, including the portions that are not over EU territory.¹⁰

^{6.} Thirty-seventh Session of the UNFCCC Subsidiary Body for Scientific and Technological Advice (SBSTA37), Doha, Qatar, Nov. 26–Dec. 1, 2012, Agenda Item 11(d) Emissions from fuel used for international aviation and maritime transport (Submission by the International Civil Aviation Organization (ICAO)), ¶ 1.1 (2012) [hereinafter SBSTA 37 Agenda Item 11(d)].

^{7.} Joshua Meltzer, *Climate Change and Trade – The EU Aviation Directive and the WTO*, 15 J. INT'L ECON. L. 111, 122 (2012); SBSTA 37 Agenda Item 11(d), *supra* note 6.

^{8.} ICAO Environmental Report 2010, supra note 2, at 18. Non-CO₂ emissions consist of "carbon dioxide, nitrogen oxides, water vapour, sulphate and soot particles," Council Directive 2008/101/EC, supra note 1, at 19. CO₂ emissions from aviation are released directly into the upper troposphere and lower stratosphere. ICAO Environmental Report 2010, supra note 2, at 38–41. In combination with non-CO₂ GHG emissions, their effect may double or quadruple the impact of CO₂ alone, exacerbating their contribution to global warming. Id.

^{9.} Council Directive 2008/101/EC, supra note 1, at 9. The ICAO is a "specialized agency of the United Nations" that was established by the Chicago Convention in 1944 to ensure the safety and development of international civil aviation. Convention on International Civil Aviation, Dec. 7, 1944, art. 43–44, 61 Stat. 1180, 15 U.N.T.S. 295 [hereinafter Chicago Convention]. The members of the ICAO meet at least once every three years at the ICAO Assembly to set "legally binding standards," "issue non-binding policy recommendations," and establish other policy for the organization. See Opinion of Advocate General Kokott, Air Transp. Ass'n of Am. v. Sec'y of State for Energy & Climate Change, Case C-366/10, (2011) ¶ 11 (delivered Oct. 6, 2011) (not yet reported) [hereinafter Opinion of Advocate General Kokott]; ICAO, Standing Rules of Procedure of the Assembly of the International Civil Aviation Organization, § 1, ICAO Doc. 7600/7 (7th ed. 2012).

^{10.} Meltzer, *supra* note 7, at 112–14.

The Directive brings to the forefront the importance of the inclusion of aviation emissions in an international framework to address climate change and reflects the EU's prominent role in pushing global climate change negotiations forward.¹¹

Dissension to the Directive centers on the debate over the degree to which a country can unilaterally impose environmental policies with extraterritorial effects.¹² Several major economic powers, such as the United States, India, and China, have made their opposition to the Directive known through domestic legislation, escalating the conflict. China provisionally barred airlines from complying with the Directive, and suspended a US\$14 billion deal with a European commercial aircraft manufacturer.¹³ Similarly, India directed domestic commercial aircraft carriers not to comply with the Directive.¹⁴ In November 2012, President Barack Obama signed the "European Union Emissions Trading Scheme Prohibition Act," prohibiting U.S. aircraft operators from participating in the EU ETS.¹⁵ That same month, following a meeting of the ICAO Council, the EU agreed to temporarily "stop the clock" on the enforcement of the Directive, conditioned on the realization of a global marketbased measure for aviation emissions at the 38th ICAO Assembly in 2013.¹⁶

^{11.} Council Directive 2008/101/EC, supra note 1, at 4-6.

^{12.} CENTER FOR INTERNATIONAL SUSTAINABLE DEVELOPMENT LAW (CISDL), LEGAL ANALYSIS ON THE INCLUSION OF CIVIL AVIATION IN THE EUROPEAN UNION EMISSIONS TRADING SYSTEM 8 (Verki Michael Tunteng ed., 2012) [hereinafter CISDL].

^{13.} Anurag Kotoky, India Joins China in Boycott of EU Carbon Scheme, REUTERS (Mar. 22, 2012), www.reuters.com/assets/print?aid=USLNE82L02220120322; see J.A., China and Europe's Emission-Trading Scheme Not Free to Fly, ECONOMIST (Feb. 8, 2012), www.economist.com/blogs/schumpeter/2012/02/china-and-europesemission-trading-scheme.

^{14.} Kotoky, *supra* note 13.

^{15.} European Union Emissions Trading Scheme Prohibition Act of 2011, Pub. L. No. 112-200, 126 Stat. 1477 (2012);

Brian Beary, *Obama Signs Anti-EU Emissions Trading Bill*, EUROPOLITICS (Nov. 29, 2012), http://www.europolitics.info/sectoral-policies/obama-signs-anti-eu-emissions-trading-bill-art345643-15.html.

^{16.} Commission Proposal for a Decision of the European Parliament and of the Council derogating temporarily from Directive 2003/87/EC of the European Parliament and of the Council establishing a scheme for greenhouse gas emission allowance trading within the Community, at 4–5, COM (2012) 697 (Nov. 12, 2012) [hereinafter Commission Proposal on Derogation from EU ETS]; Memorandum from the European Commission, Stopping the clock of

If the EU reinstates the Directive following the 38th ICAO Assembly, countries are likely to challenge the consistency of the Directive with World Trade Organization ("WTO") rules before the WTO Dispute Settlement Body.¹⁷ Since aviation involves trade in cargo, the aggrieved parties would likely allege that the Directive serves as an impediment to trade, in conflict with the General Agreement on Trade and Tariffs ("GATT"), a WTO agreement governing international trade in goods.¹⁸ This conflict is reminiscent of the environmental dispute in U.S.-Shrimp,¹⁹ where the Appellate Body held that unilateral environmental measures may be justified by the social and environmental exceptions contained within GATT Article XX.²⁰

17. NIGEL PURVIS & SAMUEL GRAUSZ, GERMAN MARSHALL FUND OF THE UNITED STATES, AIR SUPREMACY – THE SURPRISINGLY IMPORTANT DOGFIGHT OVER CLIMATE POLLUTION FROM INTERNATIONAL AVIATION 3 (2012). The WTO's Dispute Settlement Body was formed to resolve disputes between WTO Members "concerning their rights and obligations" under the WTO agreements. Understanding on Rules and Procedures Governing the Settlement of Disputes art. 1, Apr. 15, 1994, Marrakesh Agreement Establishing the World Trade Organization, Annex 2, 1869 U.N.T.S. 401 [hereinafter DSU]. If members cannot reach mutual agreement on the dispute, the complaining party can request the establishment of a panel to examine the matter and make recommendations, which are subject to appellate review by the WTO's Appellate Body. *Id.* art. 1–19.

18. General Agreement on Tariffs and Trade 1994, pmbl., art. III, ¶ 1 (Marrakesh, Morocco, 15 April 1994), Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, 1867 U.N.T.S. 190, 33 I.L.M. 1153 (1994) [hereinafter GATT].

19. The report of a panel or the Appellate Body pertaining to a specific dispute is only applicable to the parties to that dispute, and even if adopted does not have binding precedential value. WORLD TRADE ORGANIZATION, Legal effect of panel and appellate body reports and DSB recommendations and rulings: 7.2 Legal status of adopted/unadopted reports in other disputes, http://www.wto.org/english/tratop_e/disp_settlement_cbt_e/c7s2p1_e. htm (last visited Mar. 15, 2013). However, the reasoning developed in these reports pertaining to the interpretation of WTO rules may be persuasive in subsequent cases. Id.

20. Appellate Body Report, United States-Import Prohibition of Certain Shrimp Products, ¶ 147, WT/DS58/AB/R (Oct. 12, 1998). While the preamble to the WTO agreement explicitly recognizes the need to "protect and preserve the environment," environmentalists have historically found international trade rules to be a major obstacle to the implementation of environmental policies, even coining the WTO's General Agreement on Trade and Tariffs ("GATT") as "GATTzilla," and characterizing the WTO as an organization

ETS and aviation emissions following last week's International Civil Aviation Organisation (ICAO) Council, MEMO/12/854 (Nov. 12, 2012), available at http://europa.eu/rapid/press-release_MEMO-12-854_en.htm.

However, the Directive does not fall within the protection of Article XX because the re-routing of flights to evade full compliance with the measure, and the pass-through of compliance costs into the price of goods, will result in a net increase in GHG emissions.²¹ This will serve to undermine the relationship between the EU's rationale for the trade-restrictive effects of the measure and its legitimate objective of GHG emission reductions.²² Failure of the Directive before the WTO will undercut the important role the EU plays as a driving force behind climate change negotiations, with disastrous consequences for the achievement of a global market-based measure for aviation emissions, and a global climate regime as a whole.²³

This Note argues that in light of these risks—the debilitation of the EU's critical role as a climate leader and the jeopardization of a global climate regime, generally—the EU should forestall the extra-territorial application of the Directive, even if the 38th ICAO Assembly fails to make sufficient progress on a market-based measure, so as to allow for a multi-lateral agreement to be reached in the ICAO or another forum.²⁴ Part I provides background on the Directive and how it may be challenged under WTO rules. Part II examines how the Directive is not justified under the exceptions of GATT Article XX, in light of the reasoning in the U.S.–Shrimp decision. Part III discusses

21. *Meltzer*, *supra* note 7, at 140–45.

22. See Appellate Body, Brazil-Measures Affecting Imports of Retreaded Tyres, ¶ 227, WT/DS332/AB/R (Dec. 3, 2007).

23. See Louise Van Schaik & Simon Schunz, Explaining EU Activism and Impact in Global Climate Politics: Is the Union a Norm- or Interest-Driven Actor? 50 J. COMMON MKT. STUDIES 169, 179–82 (2012); PURVIS & GRAUSZ, supra note 17, at 3.

24. See Schaik & Schunz, supra note 23, at 183-84.

that prioritizes trade liberalization at the cost of the environment. *Id.* pmbl.; Sanford Gaines, *The WTO's Reading of the GATT Article XX Chapeau: A Disguised Restriction on Environmental Measures*, 22 U. PA. J. INT'L ECON. L. 739, 752 (2001). Alternatively, opponents to such environmental measures argue that concessions for environmental policies will be used as a façade for "increased trade protectionism of domestic industry," and trigger "tit-for-tat trade restrictions." Meltzer, *supra* note 7, at 117; GARY C. HUFBAUER ET AL., GLOBAL WARMING AND THE WORLD TRADING SYSTEM 13 (2009). Hufbauer provides a hypothetical example of tit-for-tat trade restrictions: the United States could enact performance standards or carbon taxes for certain imports from a country such as India, arguing that Indian industries have high GHG emissions. HUFBAUER ET AL., at 13. In response, India could "impose a duty on all imports from the United States," arguing that the United States' average CO₂ emissions are greater than the world average. *Id*.

the implications of this outcome for future efforts to combat climate change and recommends that the EU continue to defer the extraterritorial enforcement of its Directive until a multilateral environmental agreement is reached for aviation emissions.

I. BACKGROUND

A. The Expansion of the EUETS

The EU emerged as a driving force for international climate policy during the negotiations of the Kyoto Protocol to the United Nations Framework Convention on Climate Change ("Convention" or "UNFCCC").²⁵ Under the Convention, the EU committed to reduce its emissions by 8% of 1990 levels by 2012,²⁶ a commitment it voluntarily revised in 2007 to 20% of 1990 levels by 2020.²⁷ To assist in achieving its Kyoto commitments. and to contribute to the international goal of limiting global temperature increases to 2° Celsius, the EU implemented its cap-and-trade scheme, the EU ETS.²⁸ The EU ETS seeks to reduce GHG emissions by capping the total volume of emissions from businesses in the energy-intensive industry and power sectors at a certain level.²⁹ These large emitters are then required to obtain "allowances" to cover each ton of CO₂ or CO_2 -equivalent they release within the capped emissions amount.30

^{25.} The Kyoto Protocol is an international agreement under the United Nations Framework Convention on Climate Change ("UNFCCC"), that sets binding targets for reductions in greenhouse gas emissions. Kyoto Protocol to the United Nations Framework Convention on Climate Change, Art. 2.2, Dec. 10, 1997, U.N. Doc FCCC/CP/1997/7/Add.1, 37 I.L.M. 22 (1998) [hereinafter Kyoto Protocol].

^{26.} Jos Delbeke, The Emissions Trading Scheme (ETS): The Cornerstone of the EU's Implementation of the Kyoto Protocol, 1 EUR. REV. OF ENERGY MKT. 1, 2 (2006); Sebastian Oberthür & Claire Roche Kelly, EU Leadership in International Climate Policy: Achievements and Challenges, 43 THE INT'L SPECTATOR 35, 36 (2008).

^{27.} Delbeke, supra note 26, at 2; Oberthür & Kelly, supra note 26, at 36.

^{28.} Council Directive 2003/87/EC, 2003 O.J. (L 275) art. 1, 5 (EU); Council Directive 2008/101/EC, *supra* note 1, at 3–5, 10–11.

^{29.} Delbeke, *supra* note 26, at 2; Council Directive 2003/87/EC, *supra* note 28, at Annex 1; *European Commission Report on The EU Emissions Trading System (EU ETS)*, *supra* note 1.

^{30.} European Commission Report on The EU Emissions Trading System (EU ETS), supra note 1.

Businesses can acquire allowances in several ways. First, the government allocates a set number of free allowances, the proportion of which decreases the longer the EU ETS is in operation.³¹ The remaining allowances are then auctioned, where companies may buy additional allowances if needed to fully cover their emissions or sell their surplus allowances.³² The EU ETS requires companies to monitor and report their annual GHG emissions to an accredited independent verifier.³³ A company is sanctioned if its emissions exceed the number of allowances it holds.³⁴ The EU reports that the EU ETS currently covers 45% of the total GHG emissions from the EU member countries.³⁵

In accordance with the system established under the EU ETS, the Directive sets a cap on the permissible amount of aviation emissions. Airlines are then responsible for covering their annual emissions with tradable allowances.³⁶ The allocation of allowances is divided into trading periods.³⁷ During the 2012 trading period, emissions were capped at "97% of historical aviation emissions." ³⁸ During the 2013 trading period, ³⁹ and in subsequent trading periods subject to revision, emissions are

36. Council Directive 2008/101/EC, *supra* note 1, art. 3(c).

37. Id. art. 3. National governments appoint companies to facilitate the auction process, either opting to use a common platform or establishing their own platforms for the auctioning of allowances, as Germany, Poland, and the United Kingdom have done. European Commission Report on The EU Emissions Trading System (EU ETS), supra note 1.

38. Council Directive 2008/101/EC, *supra* note 1, art. 3(c). "Historical aviation emissions" are defined as "the mean average of the annual emissions in the calendar years 2004, 2005, and 2006 from aircraft performing an aviation activity listed in Annex I." *Id.* art. 1.3(s). The Directive defines "aircraft operator" as, "the person who operates an aircraft at the time it performs an aviation activity listed in Annex I or, where that person is not known or is not identified by the owner of the aircraft, the owner of the aircraft." *Id.* art. 1, 3(b). Emissions are calculated by multiplying the fuel consumption of the flight by an emission factor that is taken from the Intergovernmental Panel on Climate Change ("IPCC") guidelines. *Id.*, Annex IV(b).

39. While the EU temporarily deferred enforcement of the Directive to non-EU aircraft operators, as of November 2012, pending the 38th ICAO Assembly, the Directive still applies to intra-EU flights. *Commission Proposal on Derogation from EU ETS*, *supra* note 16, at 4–5.

^{31.} Id.

^{32.} *Id*.

^{33.} *Id.*

^{34.} *Id*.

^{35.} Id.

capped at 95% of historical aviation emissions.⁴⁰ While 15% of allowances are distributed through the auction process, the remaining allowances are granted to aircraft operators free of charge.⁴¹ Aircraft operators that do not comply with the Directive are subject to a penalty of roughly €100 per missing allowance, and are still responsible for coming up with the missing allowances.⁴² If aircraft operators refuse to comply, they may be subject to a ban from operating in the EU.⁴³

There are three notable provisions of the Directive. First, to address "carbon leakage" and competitiveness concerns, the EU included non-EU airlines within the Directive and required airlines to obtain allowances for the full-length of flights landing in or taking off from the EU, including the portion of the flight outside of EU territory.⁴⁴ Carbon leakage occurs when businesses transfer production to countries with more lax environmental policies to evade the costs of complying with an environmental regulation,⁴⁵ thereby diluting the effectiveness of the measure's objective to reduce carbon emissions.⁴⁶ Competitiveness concerns arise when price increases as a result of increased environmental regulation lead foreign countries to substitute domestic goods for imported goods from the EU.⁴⁷ In addition, if the Directive only applied to the part of the flight within the EU, an aircraft operator may adjust his or her flight plan to minimize the distance flown within the EU and evade compliance with the Directive.⁴⁸ This would result in an overall increase in the length of the flight and the related GHG emissions.⁴⁹ If unaddressed, carbon leakage and competitiveness

^{40.} Council Directive 2008/101/EC, supra note 1, art. 3.

^{41.} *Id.* art. 3(d)(3).

^{42.} ICAO, Inclusion of International Civil Aviation in the European Union Emissions Trading Scheme (EU ETS) and its Impact, at 1.3, ICAO Doc. C-WP/13790 (Oct. 17, 2011); Council Directive 2008/101/EC, supra note 1, art. 16.

^{43.} Council Directive 2008/101/EC, supra note 1, at 26.

^{44.} E.g., Council Directive 2008/101/EC, *supra* note 1, art. 3; Meltzer, *supra* note 7, at 116–22.

^{45.} Meltzer, *supra* note 7, at 16.

^{46.} Id.

^{47.} Id. at 116–22.

^{48.} Id. at 140.

^{49.} *Id.* at 145.

issues would lead to a lack of net emissions reductions and serve as a major disadvantage to domestic industry.⁵⁰

Second, the Directive contains several exemptions under which certain flights may be excluded from the regulatory scheme.⁵¹ First, the Directive contains a conditional exemption to allow for the optimal interaction between the Directive and measures adopted in non-EU countries to address aviation emissions.⁵² The conditional exemption provides for coordination between the two regulatory schemes, or exemption of the non-EU country's aviation emissions from the Directive.⁵³ Second, the EU commits to mitigate or eliminate obstacles to accessibility or competitiveness issues that may arise under the Directive.⁵⁴ This commitment seeks to take into account countries that may be disproportionately disadvantaged by the operation of the Directive, such as countries dependent on tourism.⁵⁵ Other activities excluded from the requirements of the Directive include aircraft operators that fly a de minimus number of flights per allowance period and flights relating to military operations, scientific research, public service, training, and the official duties of government officials.⁵⁶

Third, to further contribute to the EU ETS's objective to combat global climate change, the Directive pledges to allocate all revenues from the auctioning of allowances to climate change research, adaptation, and mitigation efforts in the EU and in other countries.⁵⁷ In addition, the EU expresses its intention for the Directive to serve as a blueprint for emissions trading schemes in other countries, which will ultimately link with the EU ETS and serve as a stepping stone towards an international framework addressing aviation-related climate change activities.⁵⁸

^{50.} See Id. at 111–12, 116–18.

^{51.} Council Directive 2008/101/EC, supra note 1, art. 25.

^{52.} Id.

^{53.} Id.

^{54.} Id. art. 30.

^{55.} See id. art. 30. An example of a country dependent on tourism is Barbados, where tourism accounts for 59% of the country's GDP. Lorand Bartels, *The WTO Legality of the Application of the EU's Emission Trading System to Aviation*, 23 EUR. J. INT'L L. 429, 433 n.31 (2012).

^{56.} Council Directive 2008/101/EC, supra note 1, Annex 1(b)-(c).

^{57.} Id. at 22.

^{58.} Id. at 5-6, 17.

While the EU frames the Directive as a building block for an international emissions trading scheme for aviation, its decision to regulate aviation emissions was made independent of any international decision making body. Historically, international discussions on the regulation of aviation emissions have been unfruitful. When the negotiation of the Kyoto Protocol failed to reach an agreement on how to address aviation emissions, future efforts to make GHG emissions reductions in this area were relegated to the ICAO.⁵⁹ The ICAO lists environmental protection as one of its strategic objectives, but by 2004 it had made few developments on how to address aviation emissions and it appeared that an emissions trading system for aviation would not be pursued under the ICAO's auspices.⁶⁰ Dissatisfied with the slow progress of international negotiations, in 2008 the EU enacted the Directive.⁶¹

The ICAO expressed strong opposition to the Directive in a working paper that was supported by "26 of the 36 Member States on the ICAO Council."⁶² The ICAO denounced the EU's unilateral market-based system, holding the view that the Directive undermines the ICAO's leadership in the field of international aviation and its ability to serve as a forum for effectively addressing aviation's contribution to global climate

^{59.} Article 2.2 of the Kyoto Protocol states, "The Parties included in Annex I shall pursue limitation or reduction of emissions of greenhouse gases not controlled by the Montreal Protocol from aviation and marine bunker fuels, working through the International Civil Aviation Organization and the International Maritime Organization respectively." Kyoto Protocol, *supra* note 25, art. 2.2.

^{60.} Council Directive 2008/101/EC, supra note 1, at 9. In 2007, the ICAO established a special group to create a climate change program within the ICAO and has since endorsed the development of a market-based mechanism for aviation emissions if achieved through mutual agreement between member states. ICAO, Assembly Resolution in Force (as of 28 September 2007), app. K–L, ICAO Assembly Resolution A36-22 (2008); ICAO, Consolidated statement of continuing ICAO policies and practices related to environmental protection – climate change, ¶¶ 13–18, ICAO Assembly. Res. A37-19 (2010), compiled in Resolutions Adopted by the Assembly, at 55–63 (Provisional ed., Nov. 2010) [hereinafter ICAO Assemb. Res. A37-19]. The ICAO has yet to produce binding commitments to aviation emission reductions. Kate Kulovesi, "Make your own special song, even if nobody else sings along": International aviation emissions and the EU Emissions Trading Scheme, 2 CLIMATE L. 535, 541 (2011).

^{61.} Council Directive 2008/101/EC, supra note 1, at 9.

^{62.} CISDL, *supra* note 12, at 15.

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change.⁶³ The ICAO asserted that the Directive is not an effective tool to address aviation's contribution to climate change, because it will instigate nations to develop competing marketbased schemes, creating a "chaotic" system with adverse effects on efforts to reduce global emissions.⁶⁴ In addition, the ICAO expressed its concern that the EU's unilateral measure will not adequately consider the different conditions that exist in different countries, especially in developing nations.⁶⁵ Indeed, the airline industry's opposition to the Directive became even more apparent when U.S. airline carriers challenged the validity of the Directive before the European Court of Justice, a decision that addressed the ICAO's role in regulating aviation emissions.⁶⁶

B. Legal Challenges to the Directive

The international aviation community initiated the first legal challenge to the Directive in the European Court of Justice.⁶⁷ Airline industry leaders challenged the validity of the Directive, with a claim largely focused on the Directive's inclusion of transatlantic aviation.⁶⁸ The case looked at the relationship between EU law and international law, and the extent to which

^{63.} Inclusion of International Civil Aviation in the EUETS and its Impact, supra note 42, at 4.2.

^{64.} Id. at 3.2, 4.2.

^{65.} Id. at 3.1.

^{66.} CISDL, supra note 12, at 3.

^{67.} Air Transp. Ass'n of Am. v. Sec'y of State for Energy & Climate Change, Case C-366/10, (2011), $\P\P$ 1–2 (delivered Dec. 21, 2011) [hereinafter *ATAA*]. The Directive was challenged under the customary international law principles of State sovereignty and freedom to fly over the high seas, as well as the Chicago Convention, Open Skies Agreement, and Kyoto Protocol. *ATAA*, ¶ 158.

^{68.} Id. $\|\|\|$ 42–45. The claimants included the Air Transport Association of America ("ATAA"), a non-profit "trade and service organization," and American Airlines, Continental Airlines, and United Airlines. Id. $\|\|\|$ 2, 42. The International Air Transport Association and the National Airlines Council of Canada intervened on the side of the claimants, while five environmental organizations intervened on the side of the Defendant, including the Aviation Environment Federation, the British World Wildlife Fund for Nature, the European Federation for Transport and Environment, the Environmental Defense Fund, and Earthjustice. Id. $\|\|$ 44.

the EU can unilaterally regulate aviation emissions in the absence of an international regulatory framework.⁶⁹

The court found that the Directive is not a mandatory provision on conduct of non-EU countries over international territory, but that it merely takes into account extraterritorial activities that have a substantial effect on the EU's environmental interests.⁷⁰ Focusing on the environmental protection objectives of the Directive, the court found that commercial operators must comply with EU law when they land or depart from an aerodrome within the territory of the EU.⁷¹ The court's interpretation thus characterizes the Directive as an internal rule that has effects outside the EU, and not as a unilateral action.⁷²

70. See ATAA, supra note 67, $\P\P$ 125–30. It is not uncommon for a State to exercise its sovereignty extraterritorially; for example, anti-trust laws consider agreements outside the territorial jurisdiction of the regulating country. Opinion of Advocate General Kokott, supra note 9, $\P\P$ 145–49.

71. Bogojević, *supra* note 69, at 350-51.

72. *Id.* at 350–52. This is supported by the EU's commitment in the Directive to continue to work towards a multilateral agreement and by the EU's intention to have the Directive complement similar programs developed in other countries, as noted above in Part I.A. Bogojević, *supra* note 69, at 348; Council Directive 2008/101/EC, *supra* note 1, at 5, 17, art. 25.

^{69.} Sanja Bogojević, Legalising Environmental Leadership: A Comment on the CJEU'S Ruling in C-366/10 on the Inclusion of Aviation in the EU Emissions Trading Scheme, 24 J. ENVTL. L. 345, 347 (2012). The Chicago Convention was not considered binding on the EU, since the EU is not a contracting party to the agreement. ATAA, supra note 67, ¶¶ 57-71. The Kyoto Protocol was also not considered a basis for natural persons to challenge the validity of the Directive since it governs relations between states, and not individuals. Id. \P 73–77. The court then considered the Open Skies Agreement. While the court found that the airlines could rely on certain provisions of the Open Skies Agreement to challenge the validity of the Directive, it found that the Open Skies Agreement does not preclude application of the Directive to flights that arrive or depart from aerodromes within the territory of the EU when such a measure is uniformly applied to EU airlines. Id. $\P\P$ 79–100, 131–57. Finally, the court considered customary international law, and held that although individuals can challenge an act of the European Union utilizing principles of customary international law, the court's review is limited to a standard that requires the European Union to have committed manifest error in adopting the challenged act. Id. $\P\P$ 101-11, 130. The court did not find manifest error in the EU's adoption of the Directive in light of the customary international law principles that (1) "each State has complete and exclusive sovereignty over its airspace," (2) "that no State may validly purport to subject any part of the high seas to its sovereignty," and (3) the "guarantee [] [of] freedom to fly over the high seas." Id. ¶¶ 111, 114–30.

The claimants' second contention was that the application of a cap and trade scheme to aviation emissions should be negotiated and agreed upon within the ICAO, and not implemented through the unilateral action of one party.⁷³ Their argument was based on Article 2.2 of the Kyoto Protocol, which expresses a preference for the ICAO to determine an appropriate approach to reducing aviation emissions.⁷⁴ However, the European Court of Justice found that individuals cannot rely on the Kyoto Protocol to challenge the validity of a measure of the European Parliament.⁷⁵ Third, the complainants argued that the Directive constitutes a "tax or charge on fuel" that is impermissible under the Open Skies Agreement.⁷⁶ The court rejected this argument,⁷⁷ and instead found that the emissions allowances are market-based measures.⁷⁸

In upholding the validity of the Directive, the European Court of Justice authorized the EU's discretion to take unilateral environmental measures.⁷⁹ The court's decision marks the transition of international climate change governance into the "judicial realm," a transition from global negotiations to re-

75. *ATAA*, *supra* note 67, ¶ 77.

^{73.} See generally ATAA, supra note 67; Opinion of Advocate General Kokott, supra note 9, \P 42.

^{74.} ATAA, supra note 67, ¶¶ 45, 77; Opinion of Advocate General Kokott, supra note 9, ¶ 183; Kyoto Protocol, supra note 25, art. 2.2. In her advisory opinion, Advocate General Kokott argued that even if Article 2.2 expresses a preference that a market-based measure for aviation be developed in the ICAO, this does not bar the EU from implementing an independent program. Opinion of Advocate General Kokott, supra note 9, ¶ 186. In addition, Advocate General Kokott pointed out that while the ICAO 36th Assembly made a statement against unilateral action on aviation emissions, this was only a non-binding political declaration and the EU Member States that are parties to the ICAO reserved the right to use market-based measures. Id. ¶ 191.

^{76.} Id. ¶¶ 136–47; Opinion of Advocate General Kokott, supra note 9, at ¶¶ 35–36.

^{77.} ATAA, supra note 67, $\P\P$ 136–47. In addition, the court found the Directive is not a "customs duty, tax, fee or charge on fuel" because there is no direct link between the quantity of fuel consumed and the cost of allowance, the cost of allowance determined by market price upon initial allocation. *Id.* ¶ 142.

^{78.} The EU's Emissions Trading Scheme is a market-based measure in that it is based on supply and demand of emissions allowances. Bogojević, *supra* note 69, at 355. This is dissimilar from a tax that is "fixed in advance." *Id.*

^{79.} See generally ATAA, supra note 67.

gional judicial disputes.⁸⁰ The aviation community, dissatisfied with the ruling of the European Court of Justice, has threatened further legal action within the ICAO and the WTO.⁸¹ While the extra-territorial application of the Directive is suspended pending the outcome of the ICAO 38th Assembly, the EU clearly expressed its intention to reinstate the Directive if insufficient progress is made.⁸² In the event that the extraterritorial application of the Directive is reinstated in the absence of an international agreement, it is likely that an action would be initiated within the ICAO's dispute-resolution process, the result of which would be appealed to the WTO.⁸³

C. Potential Challenges Under WTO Rules

The WTO was established in 1995 to facilitate trade between WTO Member nations.⁸⁴ The WTO is a rule-based organization run by negotiated agreements, such as the GATT.⁸⁵ Through these agreements, the WTO seeks to foster "mutually advantageous arrangements" that reduce trade barriers and eliminate discrimination in trade relations.⁸⁶ These principles serve to "protect the value of trade concessions," promote "free and fair competition," and protect against "corruption of the multilateral trading system" caused by the unequal treatment of trading partners.⁸⁷

The WTO administers the rules and procedures of covered agreements and settles trade disputes through its Dispute Settlement Body.⁸⁸ In the event of a conflict between member

^{80.} Bogojević, *supra* note 69, at 356.

^{81.} Joint Declaration of the Moscow Meeting on Inclusion of Civil Aviation in the EU ETS, Russian Aviation (Feb. 22, 2012) http://www.ruaviation.com/docs/1/2012/2/22/50/ [hereinafter Meeting on Inclusion of Civil Aviation in the EU ETS].

^{82.} Commission Proposal on Derogation from EU ETS, supra note 16, at 4–5.

^{83.} See Chicago Convention, supra note 9, art. 84; PURVIS & GRAUSZ, supra note 17, at 6.

^{84.} Marrakesh Agreement Establishing the World Trade Organization, Apr. 15, 1994, 1867 U.N.T.S. 154 [hereinafter WTO Agreement].

^{85.} GATT, *supra* note 18. In addition to the GATT, the WTO has agreements that govern trade in services, intellectual property, and the settlement of disputes. *Id*.

^{86.} WTO Agreement, *supra* note 84.

^{87.} DANIEL C.K. CHOW & THOMAS J. SCHOENBAUM, INTERNATIONAL TRADE LAW: PROBLEMS, CASES, AND MATERIALS 145 (2008).

^{88.} DSU, *supra* note 17, art. 1–19.

states, an aggrieved party first engages in consultations with the country it alleges acted in contravention of a WTO agreement.⁸⁹ If the countries fail to settle the dispute independently, the aggrieved party may then request that the WTO establish a panel to make a ruling on the issue, the decision of which can be appealed to the Appellate Body.⁹⁰ If the panel or Appellate Body determine that a country's specific trade measure does not conform to the WTO, the country must bring the measure into compliance.⁹¹ If the offending party fails to do so within a reasonable period, it will be subject to sanctions and the aggrieved party may be permitted to impose retaliatory measures.⁹²

While the Dispute Settlement Body cannot coerce nations to comply with its decisions, the system works through "peer pressure and the collective desire of all WTO Members to preserve the [multilateral trading] system."⁹³ In this way, the WTO is revealed to be an organization in which the principle actors are national governments seeking to maintain the balance between a liberal trading system and domestic autonomy.⁹⁴ The WTO and the Dispute Settlement Body must therefore be sensitive to states' interests in order to "maximize the political support for [its] decisions" and thereby maintain support for the WTO and its trade liberalization objectives.⁹⁵

If the application of the Directive to non-EU airlines is reinstated after the 38th ICAO Assembly, an aggrieved nation can request that the Dispute Settlement Body convene a panel. Since it is estimated that the Directive will cost airlines up to US\$4.3 billion by 2015, airlines may deal with these costs by passing them onto consumers in the price of tickets for flights,

^{89.} *Id.* art. 4.

^{90.} *Id.* art. 5–6.

^{91.} Id. Annex 2.

^{92.} Id. art. 22.

^{93.} CHOW & SCHOENBAUM, *supra* note 87, at 52.

^{94.} John H. Knox, *The Judicial Resolution of Conflicts Between Trade and the Environment*, 28 HARV. ENVTL. L. REV. 1, 47 (2004).

^{95.} *Id.* While trade liberalization leads to productivity and welfare gains for example, globalization has added between \$800 billion to \$1.5 trillion to the U.S. economy—it is often accompanied by concerns that domestic industry will be harmed by increased foreign competition. HOUSER ET. AL., PETERSON INSTITUTE FOR INTERNATIONAL ECONOMICS & WORLD RESOURCES INSTITUTE, LEVELING THE CARBON PLAYING FIELD: INTERNATIONAL COMPETITION AND U.S. CLIMATE POLICY DESIGN 4 (2008).

and in the price of goods transported by air.⁹⁶ Due to the Directive's effect on trade in goods, it is likely that the aggrieved nation or nations will cite to the GATT in their complaint.⁹⁷ The pass through of the costs of compliance with the Directive, and the greater compliance costs for foreign airlines that fly greater distances than domestic airlines, will lead to a violation of the principle of non-discrimination, incorporated in the GATT through GATT Article I Most-Favored Nation ("MFN") Treatment, and GATT Article III National Treatment.

MFN requires that any trade advantage a member gives to a product originating in another country must be "immediately and unconditionally" given to "like products⁹⁸ originating" in the other WTO Member states. ⁹⁹ The MFN clause is triggered by the Directive's conditional exemption for countries that adopt their own climate reduction strategies for aviation.¹⁰⁰ If countries pass the cost of complying with the Directive into the price of cargo, two countries that import a like product—one that has received the exemption and one that has not—would pay different cargo rates.¹⁰¹ For example, consider a situation where Country A and Country B both import a like product into the EU.¹⁰² If the EU were to then exempt Country A from the Directive, Country A would face lower cargo rates for its product than Country B.¹⁰³ This would result in differential treatment between the two countries, and call the consistency

^{96.} If airlines pass the cost of compliance into the cost of tickets on commercial flights, this could result in an increase cost per passenger from \$2.60 to \$6.00. Meltzer, *supra* note 7, at 121.

^{97.} Id. at 127. While the decision to pass compliance costs into the price of goods will be made by private companies, the EU is not relieved of its obligations under the GATT because the requirements of the Directive are what necessitate this private choice. See Appellate Body Report, Korea-Measures Affecting Imports of Fresh, Chilled and Frozen Beef, ¶ 146, WT/DS161/AB/R, WT/DS169/AB/R (Dec. 11, 2000); see Meltzer, supra note 7, at 133.

^{98.} Whether two products are considered "like" depends upon the similarities between the products' end-uses, consumers' tastes and preferences, physical characteristics, and tariff classifications. Appellate Body Report, *Japan-Taxes on Alcoholic Beverages*, 20–23, WT/DS8/AB/R, WT/DS10/AB/R, WT/DS11/AB/R (Oct. 4, 1996).

^{99.} GATT, *supra* note 18, art. I, ¶ 1.

^{100.} Meltzer, supra note 7, at 137.

^{101.} Id. at 137–38.

^{102.} See id. at 138.

^{103.} *Id*.

of the Directive with the MFN principle of unconditionality into question. $^{\rm 104}$

The principle of non-discrimination is also found in GATT Article III, "National Treatment on Internal Taxation and Regulation."¹⁰⁵ The National Treatment provision requires that foreign goods be treated no less favorably than domestic goods, extending the principle of non-discrimination to the treatment of foreign goods once they enter the domestic market.¹⁰⁶ GATT Article III:2 states that products imported by a contracting party "shall not be subject, directly or indirectly, to internal taxes or other internal charges of any kind in excess of those applied, directly or indirectly, to like domestic products."107 If the purchase of emissions allowances is considered an indirect tax or charge, then imported products may be considered taxed "in excess" of like domestic products, constituting de facto discrimination as a result of the greater distance the products are transported.¹⁰⁸ In addition, GATT Article III:1 prohibits internal taxes, charges, laws and regulations, applied "so as to afford protection to domestic production."¹⁰⁹ The Directive explicitly references competitiveness concerns alongside its environmental objectives in enacting the measure.¹¹⁰ If a panel finds the primary purpose of the Directive is to protect domestic airlines from competition, the Directive would be found in violation of Article III:1.¹¹¹

107. GATT, *supra* note 18, art. III, ¶ 2.

^{104.} *Id.* at 137–38.

^{105.} GATT, supra note 18, art. III, $\P 2$.

^{106.} Id. art. III. National Treatment encompasses internal taxes and charges, including those imposed at the border, and internal regulations that govern the "conditions of sale and purchase," including regulations that adversely effect the conditions of competition between the domestic and imported goods. See, Id. art. III; Report of the Panel, Italian Discrimination Against Imported Agricultural Machinery, ¶ 12, L/833 (Jul. 15, 1958); GATT B.I.S.D. (7th Supp.) at 60 (1958).

^{108.} Meltzer, *supra* note 7, at 133–34. The European Court of Justice's determination that the emissions allowances were not a tax or charge in *Air Transp. Ass'n of Am.* does not dictate whether the Directive will be found to be a tax or a charge under GATT Article III:2, since the European Court of Justice's interpretation was made under a different agreement. Opinion of Advocate General Kokott, *supra* note 9, ¶¶ 35–38; Meltzer, *supra* note 7, at 130.

^{109.} GATT, *supra* note 18, art. III, ¶ 1.

^{110.} Council Directive 2008/101/EC, supra note 1, at 16.

^{111.} Meltzer, supra note 7, at 135.

The Directive is also inconsistent with GATT Article III:4.112 GATT Article III:4 requires that "the products of the territory of any contracting party imported into the territory of any other contracting party shall be accorded treatment no less favourable than that accorded to like products of national origin."113 The purchase of a greater number of GHG emission allowances because of greater distances flown involves a cost on imported goods that is not imposed on like domestic goods, and therefore constitutes less favorable treatment in violation of Article III:4.114 However, the Directive's violation of GATT Articles I and III is not dispositive of its conformity with its WTO obligations. As a measure intended to address global climate change that is "otherwise inconsistent with GATT," the environmental objectives of the measure may entitle it to justification under the General Exceptions of GATT Article XX for social and environmental measures.¹¹⁵

II. GATT ARTICLE XX AND THE AVIATION DIRECTIVE

A. The General Exceptions of GATT Article XX

The determination of whether a trade restrictive measure is justified under GATT Article XX requires a two-tiered analysis.¹¹⁶ First, a panel will examine whether the measure falls within one of the ten categories of social and environmental exceptions of Article XX.¹¹⁷ Second, if the measure is found to fall within one of the exceptions, it must also satisfy the requirements of the introductory clause to Article XX, the chapeau.¹¹⁸ A measure violates the chapeau to Article XX if the application of the measure results in discrimination that is "arbitrary or unjustifiable," and "between countries where the

^{112.} Id.

^{113.} GATT, supra note 18, art. III, ¶ 4.

^{114.} Meltzer, *supra* note 7, at 136.

^{115.} Knox, supra note 94, at 9; GATT, supra note 18, art. XX.

^{116.} Appellate Body Report, United States–Standards for Reformulated and Conventional Gasoline, 22–23, WT/DS2/AB/R (Apr. 29, 1996).

^{117.} Id.

^{118.} Id. The chapeau to Article XX is a principle of "good faith" that attempts to prevent the "nullification or impairment" of the rights of other members by the improper use of the Article XX exceptions. United States-Import Prohibition of Certain Shrimp Products, supra note 20, ¶ 159.

same conditions prevail," or where the measure constitutes a "disguised restriction on trade."¹¹⁹

The Directive falls within two of the GATT Article XX exceptions. The first is GATT Article XX(g), which exempts measures relating to the "conservation of exhaustible natural resources" that are "made effective in conjunction with restrictions on domestic production or consumption."120 The Appellate Body in U.S.-Shrimp, "open[ed] the door to unilateral environmental measures under Article XX(g)," when it found that the United States' unilateral "import ban on shrimp harvested" in a way that endangers certain species of sea turtles fell within the Article XX(g) exception.¹²¹ The Appellate Body's interpretation allows countries to condition market access on compliance with unilateral environmental measures under GATT Article XX(g), vet it also marks the transition of the WTO's disfavor of unilateral measures into the chapeau.¹²² This reflects the WTO's concern that trade restrictive environmental policies will be used as a facade for trade protectionism.¹²³

Under GATT Article XX(g), for a measure to be considered "relating to" legitimate ends, the means must be narrowly focused and "reasonably related to [those] ends."¹²⁴ An "exhaustible natural resource" is something that has value and that is capable of being depleted either quantitatively or qualitative-

^{119.} The term "discrimination" in the chapeau does not refer to the same "discrimination" referenced in the "substantive obligations of GATT 1994." United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 150.

^{120.} GATT, *supra* note 18, art. XX(g). The Appellate Body's decision in *U.S.-Gasoline* sheds light on what it considers when it examines a "measure" under GATT Article XX(g). The Appellate Body only found it necessary to review the particular provisions of the gasoline rule that were under review, and not the rule as a whole. *United States-Standards for Reformulated and Conventional Gasoline*, Appellate Body Report, *supra* note 116, at 13–14. This implies that if the extraterritorial application of the Directive is struck down before the WTO, the remaining provisions of the Directive can be preserved.

^{121.} Gaines, supra note 20, at 749; United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶¶ 138, 145.

^{122.} Gaines, *supra* note 20, at 744.

^{123.} See GATT, supra note 18, art. XX.

^{124.} United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶¶ 138, 141.

ly.¹²⁵ For example, in *U.S.-Gasoline*, the panel found that clean air was an exhaustible natural resource as it had value and was capable of being depleted through pollution, which had a negative impact on air quality.¹²⁶ "Exhaustible natural resources" may be living or non-living, and do not necessarily have to be finite.¹²⁷ The final requirement of Article XX(g) is implementation in conjunction with similar domestic measures to guarantee "*even-handedness* in the imposition of [the] restrictions" domestically and on imports.¹²⁸

The objective of the Directive is to stabilize GHG emissions from international air transport to mitigate the effects of climate change, including risk to ecosystems, to food production, and to human health and security.¹²⁹ The reduction of atmospheric concentrations of GHG emissions has a qualitative effect, in that it reduces secondary detrimental effects to the environment and human health. Therefore, the means of the Di-

^{125.} Panel Report, United States–Standards for Reformulated and Conventional Gasoline, ¶ 6.37, WT/DS2/R (Jan. 29, 1996). This panel's finding that clean air is an exhaustible natural resource was not challenged in the appellate body report. United States–Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116. Consideration of what constitutes an "exhaustible natural resource" is considered "in light of contemporary concerns of the community of nations about the protection and conservation of the environment." United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 129.

^{126.} United States–Standards for Reformulated and Conventional Gasoline, Panel Report, supra note 125, \P 6.37.

^{127.} United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶¶ 128, 131. It is unclear whether there is a jurisdictional requirement to invoking the Article XX exception. However in U.S.-Shrimp, the migratory species of turtle protected by the U.S. measure was considered to have a sufficient jurisdictional nexus with the United States for regulation, even when some of the species regulated under the measure never entered U.S. jurisdiction. Id. ¶ 133. The EU's Directive has a jurisdictional nexus with the EU as it seeks to protect the "atmosphere," which is part of the global commons. Bartels, supra note 55, at 450.

^{128.} United States-Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 20–21. U.S.-Gasoline interpreted this provision as "primarily aimed" at conservation goals. Id. The subsequent effects of the measure do not have to be immediate, as "a substantial period of time . . . may have to elapse before the effects attributable to implementation of a given measure may be observable." Id. However, if a measure "cannot in any possible situation have any positive effect on conservation goals," the Appellate Body considered it likely that the measure was not primarily aimed at achieving the stated goals to begin with. Id. at 21–22.

^{129.} Council Directive 2008/101/EC, supra note 1, at 2-3, 10, 14.

rective relate to its ends of climate change mitigation. The Directive is "even-handed," in that it applies equally to all flights that land or depart from an aerodrome in the EU, regardless of whether they are international or domestic flights.¹³⁰ Thus, the Directive falls under the Article XX(g) exception.

The Directive also falls under Article XX(b), exempting measures "necessary to protect human, animal or plant life or health."¹³¹ For a measure to be necessary, the degree to which it materially contributes to reaching its objective is "weighed against its trade restrictiveness."¹³² It does not have to be indispensable, but there must be no reasonable alternative that is more consistent with the GATT.¹³³ Furthermore, even if a measure's contribution is not "immediately observable," but spread out over time, it may still be justified under Article XX(b) when such projections are supported by quantitative or qualitative evidence. ¹³⁴

The Directive makes a material contribution to the reduction of GHG emissions in that it increases the price of allowances over time, providing an increasing economic incentive to minimize and reduce emissions.¹³⁵ In addition, revenue from the sale of allowances is donated to efforts to fight and adapt to climate change, which further contributes to its goals.¹³⁶ It remains to be seen whether opponents of the Directive will propose less trade restrictive alternatives that are more consistent with the GATT, and whether the Directive will prevail over these alternatives.¹³⁷

^{130.} Id. ¶ 16, art. 1.

^{131.} GATT, *supra* note 18, art. XX(b).

^{132.} Brazil–Measures Affecting Imports of Retreaded Tyres, Appellate Body Report, supra note 22, \P 210.

^{133.} Korea-Measures Affecting Imports of Fresh Chilled and Frozen Beef, Appellate Body Report, supra note 97, ¶ 161. While there may be no reasonable alternative more consistent with the GATT, the country defending the measure does not have to identify and discount all potential alternatives. Bartels, supra note 55, at 451.

^{134.} Brazil-Measures Affecting Imports of Retreaded Tyres, Appellate Body Report, supra note 22, ¶ 151. The Appellate Body in Brazil-Tyres further stated that, "the result obtained from certain actions—for instance, measures adopted in order to attenuate global warming and climate change . . . may manifest themselves only after a certain period of time [and] can only be evaluated with the benefit of time." Id.

^{135.} Meltzer, *supra* note 7, at 143.

^{136.} Council Directive 2008/101/EC, *supra* note 1, at 22.

^{137.} Bartels, *supra* note 55, at 451.

Opponents of the Directive argue that if airlines pass the cost of complying with the Directive directly into cargo rates, there is no incentive for airlines to reduce overall emissions, weighing against a finding that the measure relates to its conservation goals under Article XX(g).¹³⁸ However, a panel may interpret this pass through as a transition of the Directive's policy objectives into the price of goods—since the increase is still correlated to GHG emissions—thus maintaining the measure's provisional justification under Article XX(g).¹³⁹ While the Article XX(b) "necessary" requirement is more stringent than the relationship of "relating to" in Article XX(g), both exceptions serve to justify the Directive.

B. The Chapeau to Article XX

Once the Directive is provisionally justified by one of the Article XX exceptions, the panel will examine the measure under the chapeau to Article XX. While U.S.-Shrimp established the permissibility of unilateral environmental measures under Article XX(g), the strict requirements of the chapeau remain a formidable obstacle and have been compared to the "eye of the needle" through which hardly any environmental measures will be able to pass.¹⁴⁰ The chapeau to Article XX requires that application of these measures does not constitute:

- (a) "arbitrary discrimination" (between countries where the same conditions prevail);
- (b) "unjustifiable discrimination" with the same qualifier; or
- (c) "disguised restriction on international trade."¹⁴¹

Violation of any one of the three standards disqualifies the measure from justification under Article XX.¹⁴² The chapeau ensures that discriminatory measures that are considered "jus-

^{138.} Meltzer, supra note 7, at 141.

^{139.} Id. at 144-45.

^{140.} Gaines, *supra* note 20, at 741, 773.

^{141.} United States–Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 23.

^{142.} United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 184. Under the chapeau, the party invoking the Article XX exceptions has the burden of showing that its measure is not applied so "as to frustrate or defeat the legal obligations of the holder of the right." United States-Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 32.

tified" under the Article XX exceptions are based on a nonprotectionist rationale.¹⁴³ A court making a determination of arbitrary or unjustifiable discrimination will look at whether the cause or rationale for the discrimination bears a relationship to the legitimate objective of the measure.¹⁴⁴

The first standard of the chapeau, arbitrary discrimination, looks at the procedures for implementing a measure, their flexibility, and the degree to which they take into account "the appropriateness of [the] programme for the conditions prevailing in the exporting country."¹⁴⁵ In U.S.–Shrimp, the Appellate Body found the U.S.'s certification process denied certification to any country that did not impose the exact shrimp trawling methods unilaterally prescribed by the United States, regardless of the effectiveness of alternatives.¹⁴⁶ The rote application of these standards lacked procedural fairness as certification decisions were made without a formal notification or review process.¹⁴⁷ The Appellate Body found that the rigidity and inflexibility of the U.S. certification "could result in the negation of rights of Members," and therefore constituted arbitrary discrimination.¹⁴⁸

^{143.} United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 15; Gaines, supra note 20, at 739. The burden of proving that a measure "provisionally justified" under the Article XX exceptions does not constitute discrimination under the chapeau falls on the party invoking the exception. United States-Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 22–23.

^{144.} Brazil-Measures Affecting Imports of Retreaded Tyres, Appellate Body Report, supra note 22, $\P\P$ 226-27. While the effects of the discrimination are also a relevant factor, they are not dispositive. For example, in Brazil-Tyres, the Appellate Body found that the panel used the incorrect analysis to interpret the term "unjustifiable discrimination," by focusing exclusively on the quantitative impact of the discrimination on achieving the environmental objective of the measure. Id. $\P\P$ 229-30.

^{145.} HUFBAUER ET AL., supra note 20, at 54; Panel Report, United States-Import Prohibition of Certain Shrimp and Shrimp Products Recourse to Article 21.5 by Malaysia, ¶ 5.122, WT/DS58/RW (Jun. 15, 2001).

^{146.} United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶¶ 177, 180.

^{147.} The U.S. certification process provided no opportunity for member countries "to be heard, or to respond to any arguments made against it . . . before a decision to grant or to deny certification [was] made." *Id.* ¶¶ 177, 180–81. While a "list of approved applications [was] published in the Federal Register," there was no opportunity to request review of, or appeal a decision of, denial. *Id.*

^{148.} *Id.* ¶¶ 181, 184.

The determination of unjustifiable discrimination looks at the substance of the application of the measure.¹⁴⁹ In U.S.-Shrimp, the Appellate Body found that the United States' import ban constituted "unjustifiable discrimination" for several reasons. First, the Appellate Body found the application of the U.S. measure required countries to "adopt essentially the same regulatory program as the U.S.," even if the members' alternative programs served the United States' declared policy goal.¹⁵⁰ This rigid and inflexible standard failed to take into account the different conditions within the member countries, constituting unjustifiable discrimination.¹⁵¹ Second, the Appellate Body found unjustifiable discrimination in the United States' failure to conduct across-the-board negotiations with member countries that exported shrimp with the purpose of reaching a multilateral or bilateral agreement prior to enforcing its ban.¹⁵² Lastly, the Appellate Body noted the application of the United States' measure was unilateral in character, heightening its "disruptive and discriminatory influence" and "underscoring its unjustifiability."153

Under the third standard of the chapeau to Article XX, a measure must not constitute a "disguised restriction on international trade."¹⁵⁴ Three standards are used to determine if a member is using the GATT Article XX exceptions to intention-

^{149.} HUFBAUER ET AL., *supra* note 20, at 54.

^{150.} United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, $\P\P$ 164–65.

^{151.} See Id. ¶¶ 161, 165–66, 172; HUFBAUER ET AL., supra note 20, at 55.

^{152.} United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 166. While there was no requirement for the conclusion of an agreement, the United States needed to make "serious, good faith efforts" to negotiate such an agreement to meet the requirements of the chapeau. Appellate Body Report, United States-Import Prohibition of Certain Shrimp and Shrimp Products Recourse to Article 21.5 of the DSU by Malaysia, ¶ 123, WT/DS58/AB/RW (Oct. 22, 2001). In addition, the Appellate Body found it dispositive that the United States had not negotiated equally with all members affected by the ban and had not provided equal support in the form of transfer of TED technology to the countries involved. United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 175.

^{153.} United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 172.

^{154.} GATT, supra note 18, art. XX.

ally "conceal the pursuit of trade-restrictive objectives." ¹⁵⁵ First, the publicity test requires that the measure be publicly announced.¹⁵⁶ Second, measures that constitute "arbitrary discrimination" and "unjustifiable discrimination" have been interpreted to lead to a determination that a measure is also a "disguised restriction on trade."¹⁵⁷ Third, the "design, architecture and revealing structure"¹⁵⁸ of the measure may reveal a protectionist objective.¹⁵⁹

The underlying purpose of the three standards in the chapeau is to avoid the abuse of the "exceptions to substantive rules" of the GATT provided in Article XX.¹⁶⁰ The clause thereby serves to balance a WTO Member's legal right to invoke an Article XX exception, with the rights of other WTO Members.¹⁶¹ This balancing mechanism has been described as a sliding scale that is evaluated on a case-by-case basis and that, when used to strike a balance between trade and environmental concerns, has incorporated a preference for multilateralism.¹⁶²

C. Application of the Chapeau to Article XX to the Aviation Directive

The Appellate Body in U.S.-Shrimp recognized that unilateral environmental measures that serve one of the legitimate

^{155.} Panel Report, European Communities–Measures Affecting Asbestos and Asbestos-Containing Products, ¶ 8.236, WT/DS135/R (Sep. 18, 2000), quoted in Committee on Trade and Environment, GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d) and (g), ¶¶ 78–79, WT/CTE/W/203 (Mar. 8, 2002).

^{156.} In *EC-Asbestos*, the panel considered the publication of the measure in an official journal of the member state to satisfy this requirement. *European Communities–Measures Affecting Asbestos and Asbestos-Containing Products*, Panel Report, *supra* note 155, \P 8.234.

^{157.} United States–Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 25; GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d) and (g), supra note 155, ¶ 82.

^{158.} Japan–Taxes on Alcoholic Beverages, Appellate Body Report, supra note 98, at 29.

^{159.} European Communities–Measures Affecting Asbestos and Asbestos-Containing Products, Panel Report, supra note 155, ¶ 8.236.

^{160.} United States–Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 25.

^{161.} United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 156.

^{162.} Id. ¶ 159; Knox, supra note 94, at 56–57.

objectives in the GATT Article XX exceptions are not "a priori incapable of justification under Article XX."¹⁶³ The Appellate Body's respect for the environmental policies of WTO Member countries was expressed in *U.S.-Gasoline*: "WTO Members have a large measure of autonomy to determine their own policies on the environment (including its relationship with trade), their environmental objectives, and the environmental legislation they enact and implement."¹⁶⁴ The Appellate Body found this interest to only be circumscribed by the substantive obligations of GATT and the other WTO agreements.¹⁶⁵ However, while the Directive is provisionally justified under the Article XX exceptions of "conserving exhaustible natural resources," and protecting "human, animal and plant life and health," the application of the Directive constitutes arbitrary and unjustifiable discrimination under the chapeau.

Two scenarios identify implicit "arbitrary and unjustifiable discrimination" in the application of the Directive. The first scenario arises from the Directive's method for regulating aviation emissions. Aviation emissions are calculated by monitoring fuel consumption for the full length of the flight between the EU and a non-EU country.¹⁶⁶ The Appellate Body has found arbitrary and unjustifiable discrimination to exist when a WTO Member State's justification for a discriminatory measure bears no rational connection to, or goes against the stated objective of, the measure that permitted it to fall under the GATT Article XX exceptions.¹⁶⁷ Under the EU's method for monitoring aviation emissions, two flights that travel the same distance can be responsible for a different number of allowances if one of the flights makes an intermediate landing outside the EU, as is

^{163.} United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 121.

^{164.} United States–Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 30.

^{165.} *Id*.

^{166.} Council Directive 2008/101/EC, supra note 1, art. 3(b), Annex IV(B).

^{167.} Brazil-Measures Affecting Imports of Retreaded Tyres, Appellate Body Report, supra note 22, ¶ 227. The Appellate Body in Brazil-Tyres ruled that even though Brazil's discrimination resulted from its compliance with a ruling from the MERCOSUR arbitral tribunal, even a rational decision can be characterized as "arbitrary or unjustifiable" if it is not related "to the legitimate objectives pursued by the" measure that lead it to fall within the GATT Article XX exceptions. Id. at ¶232.

done with connecting flights.¹⁶⁸ This may even result in a direct flight being responsible for more emissions than an indirect flight that traveled a greater distance, but made an intermediate stop prior to entering the EU.¹⁶⁹ This effect would result in arbitrary and unjustifiable discrimination because it erodes the relationship between the measure and its GHG reduction goals, and may even be used as a means for airlines to evade the measure, leading to a net increase in GHG emissions.¹⁷⁰

The second scenario arises if airlines choose to pass the costs of complying with the Directive into cargo rates, resulting in increased prices for goods that are flown greater distances.¹⁷¹ Since the Directive only considers the CO_2 emissions produced in the air transport of the good, this would constitute arbitrary and unjustifiable discrimination because the distance flown is not indicative of a good's overall carbon footprint.¹⁷² For example, an aircraft operator transporting a good with a relatively large carbon footprint, but only for a short distance, would be responsible for fewer allowances than an aircraft operator transporting a good with a minimal carbon footprint that traveled a greater distance.¹⁷³ Thus, the Directive disregards efficiency improvements that reduce GHG emissions in the production and processing methods of goods, which also contribute to climate change mitigation.¹⁷⁴ Similar to U.S.-Shrimp, this overlooks the EU's declared objective to reduce global GHG emissions.

A determination of "arbitrary discrimination" also looks specifically at the procedures for implementing a measure and whether they take the conditions existing in other countries into account while continuing to serve the measure's policy objective.¹⁷⁵ When the application of a measure disserves the poli-

^{168.} Meltzer, supra note 7, at 145. Bartels, supra note 55, at 458.

^{169.} Id.

^{170.} See Meltzer, supra note 7, at 146.

^{171.} Id. at 144–45.

^{172.} Id. A "carbon footprint" accounts for either the total CO_2 , or the total CO_2 and non- CO_2 greenhouse gas emissions, for the complete lifecycle of a good, from cradle to grave. See Report of the Commission Joint Research Centre on the 'Carbon Footprint – what it is and how to measure it', (2007), available at http://lct.jrc.ec.europa.eu/pdf-directory/Carbon-footprint.pdf.

^{173.} Meltzer, *supra* note 7, at 144–45.

^{174.} See id. at 146.

^{175.} See United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 177.

cy objectives asserted to justify its trade restrictive effect, it constitutes "arbitrary discrimination."¹⁷⁶ However, procedural and due process safeguards can weigh against a finding of "arbitrary discrimination." For example, the elements of an opportunity for exporting members to be heard, and a notification and review process were considered to incorporate flexibility into a measure and responsiveness to the conditions existing in the other country.¹⁷⁷ The operation of the Directive relies in large part on the direct participation and supply of information by aircraft operators.¹⁷⁸ Under the Directive, aircraft operators submit applications for the free allowances granted by the EU, monitor their annual CO₂ emissions, and submit information on their annual emissions to an accredited verifier.¹⁷⁹ In addition, the executive body of the EU, the European Commission, publishes an annual list of aircraft operators whose activities are covered by the Directive.¹⁸⁰ The direct participation of aircraft operators in the operation of the Directive will serve to alleviate due process and procedural fairness concerns.

To avoid a finding of "unjustifiable discrimination," a country imposing a unilateral environmental measure must conduct across-the-board negotiations towards a multilateral agreement.¹⁸¹ The EU is a major actor in negotiations for international climate policy, an area in which it supports multilateral

^{176.} The U.S.-Shrimp Recourse to Article 21.5 indicates that the Appellate Body's concern with the import ban was its "coercive" nature that disregarded the conditions and views of other member states. Gaines, supra note 20, at 797; Knox, supra note 94, at 57–58. Since certification under the program was not granted to countries that used measures "comparable in effective-ness" to the U.S. method for protecting turtles, the Appellate Body viewed the application of the measure to serve the policy objective of ensuring exporting members adopted the exact same regulatory program as the United States, and not the declared objective of protecting and conserving sea turtles. United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, \P 165.

^{177.} See United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, *supra* note 20, ¶¶ 177, 180–81.

^{178.} See Council Directive 2008/101/EC, supra note 1, art. 3(e), 15. 179. Id.

^{180.} Id. art. 18(a); European Commission, Questions and Answers on historic aviation emissions and the inclusion of aviation in the EU's Emission Trading Scheme (EU ETS), at 27 (2013), available at http://ec.europa.eu/clima/policies/transport/aviation/faq_en.htm.

^{181.} United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, $\P\P$ 165–66.

cooperation to address this global environmental problem.¹⁸² The EU plays a leading role in climate policy negotiations within the UNFCCC, and other multilateral forums including the ICAO, where it has observer status.¹⁸³ The EU's participation in negotiations within the ICAO and its continued efforts to advance the negotiation process fulfill the negotiation requirement.¹⁸⁴

Lastly, whether the Directive is considered a "disguised restriction on international trade" depends on the criterion adopted by the Appellate Body to make the determination. The Directive would likely not be considered a disguised restriction on trade under the "publicity test," because the regulation was published in the Official Journal of the European Union.¹⁸⁵ Second, if the Appellate Body collapses the determination of whether the Directive constitutes "arbitrary and unjustifiable discrimination" or a "disguised restriction on trade" into one analysis, the findings above would make it unnecessary to examine this element separately.¹⁸⁶ Under the third criterion, the

^{182.} Van Schaik & Schunz, supra note 23, at 171, 173.

^{183.} Id. at 181; see Oberthür & Kelly, supra note 26, at 35–37. While all twenty-seven EU Member States are contracting parties to the Chicago Convention that established the ICAO, the European Union only has observer status. "Observer Status" is a means by which intergovernmental organizations can observe meetings of the WTO. See WTO Agreement, supra note 84, art. V; World Trade Organization, Rules of Procedure for Sessions of the Ministerial Conference and Meetings of the General Council, ch. IV, WT/L/161 (Jul. 25, 1996).

^{184.} Commission Proposal on Derogation form EU ETS, supra note 16, at 4-5.

^{185.} See Council Directive 2008/101/EC, supra note 1.

^{186.} The Appellate Body in U.S.-Shrimp found it was not necessary to analyze whether the U.S.'s import ban was a "disguised restriction on international trade," since it was already found to constitute arbitrary and unjustifiable discrimination and therefore was not justified under Article XX. United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 184. It is unclear whether the Appellate Body in U.S.-Shrimp held either that a measure constituting arbitrary and unjustifiable discrimination is a disguised restriction on trade, or that it is not necessary to look at the third standard under the chapeau since the measure already constitutes "arbitrary and unjustifiable discrimination." While U.S.-Shrimp seems to take the former approach, the Appellate Body in U.S.-Gasoline took the latter. United States-Standards for Reformulated and Conventional Gasoline, Appellate Body Report, supra note 116, at 25 (considering a disguised restriction on international trade "as embracing restrictions amounting to arbitrary or unjustifiable discrimination in international trade taken under

Directive would not be considered a "disguised restriction on international trade," since the "design, architecture and revealing structure" of the Directive incorporate the principle of nondiscrimination and a commitment to a multilateral solution.¹⁸⁷ Therefore, if the Appellate Body considers this third element of the chapeau separately, it will find that the Directive does not constitute a "disguised restriction on international trade."

With the deferment of the Directive's application to non-EU airlines, it remains to be seen whether the Directive will incorporate sufficient flexibility and sensitivity to the conditions in other states to withstand scrutiny under the chapeau. This is because it is the application of the measure and not the EU's expressed intentions that dictate whether the measure will constitute arbitrary or unjustifiable discrimination.¹⁸⁸ However, the EU will not be able to avoid the "arbitrary and unjustifiable discrimination" that is implicit in the application of the Directive.

While the Appellate Body in *U.S.-Shrimp* found the United States' "rigid and inflexible" measure to constitute "arbitrary and unjustifiable discrimination," the United States was able to bring its measure into conformity with the WTO by revising its guidelines.¹⁸⁹ Therefore, if the EU were to revise the Di-

the guise of a measure formally within the terms of an exception listed in Article XX").

^{187.} See generally Council Directive 2008/101/EC, supra note 1. The principles of non-discrimination are seen in the conditional exemption to the Directive. *Id.* art. 25(a). In addition, the Directive expresses the EU's continued commitment to working towards a multilateral agreement for aviation emissions. *Id.* at 17.

^{188.} See United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 160; European Communities-Measures Affecting Asbestos and Asbestos-Containing Products, Panel Report, supra note 155, ¶ 8.226; GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d) and (g), supra note 155, ¶ 65; Report of the Panel, United States-Prohibition of Imports of Tuna and Tuna Products from Canada, ¶ 4.8, L/5198 (Dec. 22, 1981), GATT B.I.S.D. (29th Supp.) at 91 (1982), noted in GATT/WTO Dispute Settlement Practice Relating to GATT Article XX, Paragraphs (b), (d) and (g), supra note 155, ¶ 80-81.

^{189.} United States-Import Prohibition of Certain Shrimp Products Recourse to Article 21.5 of the DSU by Malaysia, Appellate Body Report, supra note 152, ¶ 153. The United States made several changes to its original program in the revised guidelines in an attempt to take the different conditions in the exporting countries into account in the implementation of its measure. First, the United States amended its criteria for certifying exporting members programs to protect endangered sea turtles to accept programs that were "com-

rective to remedy the elements that constitute "arbitrary and unjustifiable discrimination," it is likely an Appellate Body would consider the revised measure to fall within GATT Article XX. Yet even if the Directive is justified under GATT Article XX, the EU should refrain from imposing its program on non-EU airlines in the absence of a multilateral agreement on the regulation of aviation emissions.

III. MULTILATERALISM AND THE PRESERVATION OF THE GLOBAL CLIMATE REGIME

A. The Multilateral vs. Unilateral Approach

The WTO's preference for multilateral environmental agreements¹⁹⁰ is based on the nature of environmental problems, which transcend geographic boundaries and require the efforts of more than one country to provide effective solutions.¹⁹¹ Uni-

parable in effectiveness" to the use of Turtle Excluder Devices. *Id.* ¶ 5. Second, the Revised Guidelines also allowed certification for exporting countries that trawl for shrimp in waters where there is no risk for capture of sea turtles, or whose means of shrimp fishing do not put sea turtles at risk, such as artisanal shrimp fishing methods. *Id.* ¶ 7.

^{190.} Both, the United Nations and the WTO incorporate the principle of multilateralism into their conception of environmental governance. In the Rio Declaration on Environment and Development, the U.N. opted to support an "international consensus" to address global environmental issues, and explicitly listed the avoidance of unilateral measures as one of its principles. U.N. Conference on Environment and Development, Rio Declaration on Environment and Development, Princ. 12, U.N. Doc. A/CONF.151/26 (Aug. 12, 1992); See, United States – Import Prohibition of Certain Shrimp Products, supra note 20, ¶168. Similarly, the WTO's Agenda 21 Decision on Trade and Environment advises against unilateral action, supporting an international approach to trans-boundary environmental problems. U.N. Conference on Environment and Development, Agenda 21, ¶¶ 1.1–2.1, U.N. Doc. A/CONF.151/26 (1992) [hereinafter Agenda 21]; See United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, ¶ 168. WTO Director-General Pascal Lamy elaborated on the importance of a multilateral approach to addressing climate change in his statement that "[a] multilateral agreement that includes all major emitters would be the best placed international instrument to guide other instruments, such as the WTO." Pascal Lamy, A Consensual International Accord on Climate Change is Needed, Temporary Committee on Climate Change, European Parliament (May 29, 2008), quoted in, HUFBAUER ET AL., supra note 20, at 99.

^{191.} Cf., United States–Import Prohibition of Certain Shrimp Products, Appellate Body Report, supra note 20, at ¶ 168 (noting that the species of turtles the United States sought to protect in U.S.–Shrimp were migratory, so solely implementing a domestic measure would not have served the objectives of the

lateral environmental measures with extraterritorial effects run the risk of negating the rights of other WTO Members by disregarding the conditions existing in those countries, as well as their views on how to address the common environmental problem.¹⁹² When such unilateral measures are imposed by one of the larger economic powers, such as the United States in U.S.-Shrimp, they can serve to effectively coerce less-powerful countries into adopting their standards.¹⁹³

A second concern with the authorization of the Directive, as a unilateral environmental measure, is its potential to lead to fragmentation of measures to address aviation emissions.¹⁹⁴ This fragmentation, with different programs adopted by individual countries, will create a "political maelstrom,"¹⁹⁵ and instigate repeat challenges within the WTO on whether the imposition of these measures on members, without their consent, is based on protectionist motives.¹⁹⁶ Such challenges will create a period of uncertainty and increased tensions due to these competing regulatory measures, not only freezing any forward action in efforts to address climate change, but also undermining the effectiveness of these measures as tools to address environmental problems.¹⁹⁷

In contrast, a multilateral environmental agreement is an expression of consensus among international actors that can shift current conceptions of the value and importance of addressing global climate change.¹⁹⁸ Through this shift, a set of

policy since efforts in the importing member would be effectively nullified by the lack of regulation in other countries).

^{192.} United States-Import Prohibition of Certain Shrimp Products, Appellate Body Report supra note 20, at ¶181; see Knox, supra note 94, at 58.

^{193.} See Gregory Shaffer & Daniel Bodansky, *Transnationalism*, *Unilateralism*, and *International Law*, 1 TRANSNATIONAL ENVTL. L. 31, 33–34, 37–38 (2012) (noting that the extraterritorial application of environmental standards by "dominant market actors" oftentimes leads other states to adopt similar standards, contributing to a "growing convergence of environmental laws" internationally); Gaines, *supra* note 20, at 797.

^{194.} HUFBAUER ET AL., *supra* note 20, at 96.

^{195.} *Id*.

^{196.} Shaffer & Bodansky, *supra* note 193, at 40–41.

^{197.} *Id.* at 39–41.

^{198.} Van Schaik & Schunz, *supra* note 23, at 171. *See also*, Cass R. Sunstein, *Social Norms and Social Roles*, 96 COLUM. L. REV. 903, 910 (1996) (arguing that laws expressing social values and shifting "social norms" can influence peoples' personal conceptions of what is considered acceptable and the way those people value certain goods).

values and principles emerge that redefine what is considered the appropriate response to international environmental problems.¹⁹⁹ Multilateral environmental agreements can stimulate the spread and acceptance of environmental legal norms in international environmental law, which then can then be "downloaded," or replicated into national and regional regulatory programs. 200 Even non-binding multilateral environmental agreements can play a role in developing "recognition of environmental values," which in the WTO context can serve as guidance for panels and appellate bodies in their assessment of climate change measures.²⁰¹ While unilateral environmental measures can contribute to the creation of environmental norms, they also tend to instigate "significant diplomatic tensions, resentment and concern."202 Resistance to unilateral environmental measures can undermine their effectiveness and dilute or eliminate their ability to influence "norms of behavior."203

In response to criticism on the unilateral nature of the Directive, members of the European Commission expressed concern that other countries' demands for a multilateral climate agreement merely disguise their efforts to prevent full implementation of the Directive and to forestall action in other forums, such as the ICAO.²⁰⁴ Proponents of unilateral environmental trade measures argue that such measures can be used as a tool to pressure other countries to change their policies; as one author has put it, "to deny a regime the benefits of unilat-

^{199.} Tseming Yang & Robert V. Percival, *The Emergence of Global Environmental Law*, 36 ECOLOGY L.Q. 615, 617 (2009); Van Schaik & Schunz, *supra* note 23, at 171. Sunstein defines "norms" as "social attitudes of approval and disapproval, specifying what ought to be done and what ought not to be done." Sunstein, *supra* note 198, at 914. These norms can also be codified into law. *Id*. at 914–15.

^{200.} Yang & Percival, supra note 199, at 645–66.

^{201.} Id. at 646. In resolving disputes involving trade and the environment, the Appellate Body has historically examined the plain meaning of the text of the GATT, and when the text is unclear, resorts to substantive principles held in "environmental treaties and declarations" that have received wide-spread political support. Knox, *supra* note 94, at 3, 50–59.

^{202.} Yang & Percival, supra note 199, at 648-49.

^{203.} Shaffer & Bodansky, *supra* note 193, at 40–41.

^{204.} Remarks of Mr. Hahn, EUR. PARL. DEB. (O-0127) (Sep. 21, 2010), *available at*, http://www.europarl.europa.eu/sides/getDoc.do?pubRef=-//EP//TEXT+CRE+20100921+ITEM-015+DOC+XML+V0//EN&language=EN.

eral action is to deny the prospect of change."²⁰⁵ Unilateral environmental measures are also a method for expediently pursuing solutions to environmental problems, such as climate change, in which quick and effective action is critical.²⁰⁶ In contrast, multilateral negotiations threaten to exacerbate the inexpediency with which environmental solutions are formulated, as the negotiation process is characteristically slow, expensive, politicized, and typically results in only aspirational standards rather than binding commitments.²⁰⁷ Therefore, a decision in the WTO to block the EU from including non-EU airlines in the Directive may effectively strip the EU of its ability to protect its domestic environment.²⁰⁸

However, recent developments within the ICAO show that a global market-based measure for aviation emissions may be on the horizon. In 2009, the ICAO endorsed an action plan that included aspirational goals for fuel efficiency and metrics to measure progress.²⁰⁹ The following year, the 37th ICAO Assembly resolved to achieve a "global annual average fuel efficiency improvement of 2 percent until 2020" and encouraged member states to submit action plans on how to achieve this goal.²¹⁰ The ICAO also resolved to develop a framework for market-based measures for international aviation to be reviewed at the 38th ICAO Assembly.²¹¹ Since the 37th Assembly, the ICAO has agreed to a CO₂ metric system and has formed a high-level group to address policy issues relating to the feasibility of a market-based mechanism for international aviation.²¹² Most recently, the ICAO reached an agreement on certification procedures to complement aircraft CO₂ emissions

^{205.} Gaines, *supra* note 20, at 810.

^{206.} Marc Rietvelt, Multilateral Failure: A Comprehensive Analysis of the Shrimp/Turtle Decision, 15 IND. INT'L & COMP. L. REV. 473, 495 (2005).

^{207.} Shaffer & Bodansky, *supra* note 193, at 32–33 (assuming that the EU's proposal is non-discriminatory under WTO rules); Rietvelt, *supra* note 206, at 495.

^{208.} See Shaffer & Bodansky, supra note 193, at 39–40.

^{209.} ICAO Assemb. Res. A37-19, supra note 60.

^{210.} Id. at 4, 13.

^{211.} Id. at 6-8.

^{212.} ICAO, New Progress on Aircraft CO₂ Standard. COM 15/12 (2012); ICAO, New ICAO Council High-Level Group to Focus on Environmental Policy Challenges, COM 20/12 (2012).

standards.²¹³ The practical steps the ICAO has taken towards a market-based mechanism for aviation emissions are indicative of an "alignment of political will" within the industry to come to an agreement on emissions reductions.²¹⁴

When considering whether the EU should continue to unilaterally enforce the Directive or defer to the multilateral process, the likelihood that the Directive will create environmental norms must be balanced against the likelihood that the measure will spur greater resistance and undermine the legitimacy of the global climate regime.²¹⁵ Although the EU deferred the enforcement of the Directive to non-EU airlines to allow additional time for a multilateral agreement within the ICAO, the EU will reinstate the enforcement of the non-EU airline's obligations under the Directive if the ICAO 38th Assembly does not make "clear and sufficient"²¹⁶ progress on such an agreement.²¹⁷ However, even if sufficient progress is not made at the 38th ICAO Assembly, the EU should refrain from reinstating the application of the Directive to non-EU airlines.

B. The European Union's Role in the International Climate Change Regime

The EU should continue to suspend the extraterritorial application of the Directive, because instead of creating environmental norms, the Directive will put the legitimacy of the WTO at risk and undermine the utility of unilateral environmental trade measures as a tool to address environmental problems. While the EU has the potential to serve as a "norm entrepre-

^{213.} ICAO, ICAO Environmental Protection Committee Delivers Progress on New Aircraft CO₂ and Noise Standards, COM 4/13 (2013).

^{214.} See Brian F. Havel & Gabriel S. Sanchez, *Toward an International Aviation Emissions Agreement*, 36 HARV. ENVTL. L. REV. 351, 354–55 (2012).

^{215.} See Shaffer & Bodansky, supra note 193, at 39–40.

^{216.} The European Commission expects the ICAO Assembly to "agree on a global market-based measure with a realistic timetable for further development and implementation," and "a framework for facilitating [Member] States' application of national and regional market based measure," until the global measure comes into effect. European Commission, *Frequently Asked Questions With Regard to Commission Proposal to Defer EU ETS International Aviation Compliance by One Year*, ¶ 7.1, COM(2012) 697 (Jan. 11, 2013), *available at*, http://ec.europa.eu/clima/policies/transport/aviation/ docs/20130111_ga_en.pdf.

^{217.} Commission Proposal on Derogation from EU ETS, supra note 16, at 4-5.

neur" and transfer its environmental values to its trade partners, it has yet to "successfully upload these norms," or their underlying principles "to the global level."²¹⁸ This was seen in the negotiation of the Kyoto Protocol and in the negotiations leading up to the Copenhagen Accord, where the EU played a leading role in driving negotiations forward, but failed to convince the other parties to the negotiations to adopt its positions on how to address global climate change.²¹⁹

The EU has a pattern of getting international actors to the negotiating table, but once there, exerting minimal influence in persuading other countries to buy into its position on global environmental governance. There are several explanations for the gap between the EU's environmental goals and its ability to transfer these norms to other international actors. The first is a result of a conflict of values between the EU and other key actors in climate negotiations.²²⁰ The EU is a "norm-driven actor," and shapes its climate policy around its concerns for protecting its "environmental, economic, and security-related" interests in the long-term, even if it is necessary to incur costs in the short-term.²²¹ In contrast, countries such as the United States, Japan, and four of the larger developing economies, Brazil, South Africa, India and China ("BASIC"), are "interestdriven actors," focused on protecting their short-term economic interests.²²²

These ideological differences imbue uncertainty and distrust into the negotiating process that can lead parties to become suspicious of their opponents potential ulterior motives.²²³ This results in a politicization of climate change discussions that can lead to a stalemate when major actors become reluctant to

^{218.} Bogojević, *supra* note 69, at 355; Van Schaik & Schunz, *supra* note 23, at 169.

^{219.} Van Schaik & Schunz, *supra* note 23, at 179–82.

^{220.} Oberthür & Kelly, *supra* note 26, at 36. *See* HUFBAUER ET AL., *supra* note 20, at 66; Van Schaik & Schunz, *supra* note 23, at 171, 182–84.

^{221.} Van Schaik & Schunz, *supra* note 23, at 171; Oberthür & Kelly, *supra* note 26, at 42–44.

^{222.} Van Schaik & Schunz, supra note 23, at 182–84.

^{223.} Stavros Afionis, *The European Union as a negotiator in the international climate change regime*, 11 INT'L ENVTL. AGREEMENTS 341, 352–53 (2011).

compromise their objectives.²²⁴ The uncertainty inherent in international negotiations is exacerbated by the unilateral actions of a single country when it is not clear if a self-interested goal is at play.²²⁵ However, the proponent of the unilateral measure can alleviate this concern when the measure includes some degree of sacrifice.²²⁶ Showing a "degree of sacrifice" in climate negotiations has been problematic for the EU, as seen with the Kyoto Protocol where the EU's required GHG emissions reductions were less than one-third of the reductions that would be required of the United States if it ratified the agreement.²²⁷

The shift in the political landscape of climate negotiations since the Kyoto Protocol also helps to explain the EU's struggle to upload its norms to the global level. The United States and the EU played a dominant role during the formation of the UNFCCC, and the negotiation of the Kyoto Protocol, as the countries responsible for the majority of CO_2 emissions from developed countries.²²⁸ However, by the fifteenth Conference of the Parties to the UNFCCC in Copenhagen, the BASIC countries had joined the EU and the United States as major players at the negotiating table.²²⁹ China, in particular, has become an "indispensable actor in climate politics," in that its CO2 emissions are expected to exceed the U.S.'s emissions by 75% by 2030.²³⁰ In contrast, the EU hopes to cut CO₂ emissions by 40% of 1990 levels by 2030.²³¹ The shift of the political order in climate negotiations tends to erode the EU's influence over the process.

^{224.} See Cinnamon Carlarne, The Glue that Binds or the Straw That Broke the Camel's Back?: Exploring the Implications of U.S. Reengagement in Global Climate Change Negotiations, 19 TUL. J. INT'L & COMP. L. 113, 148 (2010).

^{225.} Afionis, supra note 223, at 349–50.

^{226.} Id.

^{227.} Id.

^{228.} Lisanne Groen, et. al., The EU as a Global Leader? The Copenhagen and Cancun UN Climate Change Negotiations, 8 J. CONTEMP. EUR. Res. 173, 180 (2012).

^{229.} Id.

^{230.} Carlarne, *supra* note 224, at 123–24.

^{231.} Commission Staff Working Paper on Analysis of options beyond 20% GHG emission reductions: Member State results, 7 (2012) SWD 5 (Jan. 2, 2012), availableat

http://ec.europa.eu/clima/policies/package/docs/swd_2012_5_en.pdf.

Despite this, the EU still plays an important role in setting the climate agenda.²³² While the EU is not always successful in delivering on its ambitious aspirations in climate change negotiations, it often gains a first-mover advantage by its ability to use its norms to define the problem at issue and propose a solution.²³³ In addition, the EU has been successful as a "blocking power" in preventing attempts to renegotiate established principles and goals in international negotiations.²³⁴ The EU is likely to continue to be a major player in international climate negotiations for several reasons. First, the EU retains a competitive advantage with its significant trading bloc of twenty-seven member states.²³⁵ This significance is driven home by the EU's "trading and investment relationships" with the United States, which consist of "nearly 40 percent of world trade."²³⁶ Second, the EU is seen as a balancing force in the future distribution of power between multiple nations, such as China, Russia, and the United States.²³⁷ And third, the EU is particularly suited to continue structuring climate negotiations and advocate for international cooperation due to the strength of its own domestic environmental policy.²³⁸

The debate over the EU Directive is already highly politicized, as indicated by the challenge to the Directive before the European Court of Justice, and the U.S. legislation prohibiting U.S. airlines from complying with the Directive. In addition, the United States, India, China, and twenty other countries adopted the Moscow Joint Declaration to urge the EU to cease application of the Aviation Directive to non-EU aircraft operators and threatened future legal challenges before the ICAO

^{232.} Oberthür & Kelly, supra note 26, at 47–48.

^{233.} John Vogler & Hannes R. Stephan, *The European Union in global environmental governance: Leadership in the making?*, 7 INT'L ENVT'L AGREEMENTS 389, 410 (2007).

^{234.} Id. at 409–10.

^{235.} Patrick R. Hugg, Redefining the European Union's Position in the Emerging Multipolar World: Strong Global Leadership Potential, Restrained by Asymmetry of Power and Dissonant Voices, 20 TUL. J. INT'L & COMP. L. 145, 149 (2011).

^{236.} Id.

^{237.} Id. at 150.

^{238.} Id. at 151.

and the WTO.²³⁹ If the resolution of the conflict over the Directive is transferred to the WTO, the Appellate Body will be forced to decide on the balance between trade rights and measures to address climate change, a decision upon which its members have failed to come to an agreement.²⁴⁰

A judicial resolution of the dispute over the Directive would create a lose-lose situation. If the WTO strikes down the Directive, it would receive severe disapproval from the EU and environmental organizations that support the Directive.²⁴¹ In addition, a ruling against the Directive would undermine the EU's role as a leader in climate policy, a role that has been crucial in driving international climate negotiations forward.²⁴² If the Appellate Body were to uphold the Directive, however, the decision would be met with widespread opposition, undermining political support for the WTO as a trade institution and also undermining its legitimacy in balancing states' interests.²⁴³ This may also instigate offended members to take action to exclude the EU from future efforts to reach a multilateral agreement.²⁴⁴ Both outcomes would serve as a major disruption in the continuation and success of climate negotiations, with catastrophic consequences for the climate.²⁴⁵

CONCLUSION

Global climate change remains a formidable challenge, with the window for action quickly closing.²⁴⁶ While an international consensus has formed that global temperature increases must

^{239.} The countries were even coined the "coalition of the unwilling," by the media. *Kotoky, supra* note 13; *Meeting on Inclusion of Civil Aviation in the EU ETS, supra* note 81.

^{240.} Knox, *supra* note 94, at 49.

^{241.} PURVIS & GRAUSZ, supra note 17, at 7.

^{242.} See Van Schaik & Schunz, supra note 23, at 179-82.

^{243.} Knox, supra note 94, at 47–50; PURVIS & GRAUSZ, supra note 17, at 7.

^{244.} In the summer of 2012, the United States did not extend an invitation to the EU for a meeting it hosted for non-EU nations and U.S. State and Transportation Departments to discuss aviation emissions. Christopher F. Schuetze, U.S. Fight Against E.U. Airline Emissions Plan Heats Up, INT'L HERALD TRIB. 1 (Aug. 6, 2012), http://rendezvous.blogs.nytimes.com/2012/08/06/u-s-fight-against-europeanairline-emissions-plan-heats-up/.

^{245.} PURVIS & GRAUSZ, supra note 17, at 3.

^{246.} See Bill McKibben, Global Warming's Terrifying New Math, ROLLING STONE (Jul. 29, 2012), http://www.rollingstone.com/politics/news/global-warmings-terrifying-new-math-20120719.

be limited to 2° Celsius to prevent "dangerous anthropogenic interference with the climate,"²⁴⁷ there still remains a significant gap between countries' voluntary commitments and the reductions necessary to prevent global temperature increase above this threshold.²⁴⁸ Even though the EU's Directive constitutes a step toward addressing this environmental challenge, it will ultimately serve as a setback in efforts to address global climate change.

Enforcement of the Directive on non-EU airlines will exacerbate the already severe tensions surrounding the measure, driving the dispute into the WTO for judicial resolution. Instead of creating positive environmental norms, the Directive's failure before the WTO would undermine the use of unilateral environmental measures with extraterritorial effects as a tool for climate policy, as well as other non-climate related environmental measures. Though the WTO has yet to use GATT Article XX to balance international trade with efforts to combat climate change, it is unwise to use the Directive as a means to define this relationship. A multilateral environmental agreement for aviation emissions is on the horizon, and even if the 38th ICAO Assembly fails to establish a market-based mechanism for these emissions, the EU should abstain from the extra-territorial application of the measure to preserve the climate negotiation process.

Katelyn E. Ciolino^{*}

^{247.} United Nations Framework Convention on Climate Change, Action taken by Conference of the Parties at its fifteenth session, Decision 2/CP.15 Copenhagen Accord ¶ 1. U.N. Doc. FCCC/CP/2009/11/Add.1 (Mar. 30, 2010). 248. United Nations Environment Programme, The Emissions Gap Report 2012: A UNEP Synthesis Report, 1–5 (Nov. 2012),

http://www.unep.org/pdf/2012gapreport.pdf.

^{*} B.A., Colgate University (2010); J.D., Brooklyn Law School (expected 2014); Editor-in-Chief, *Brooklyn Journal of International Law* (2013–2014). I would like to extend my thanks to the entire *Brooklyn Journal of International Law* staff for their time, feedback, and guidance in the publication of this Note. Thank you to the Brooklyn Law School professors who contributed their insight and assistance throughout this process. Finally, I owe special thanks to my friends and family for their support and encouragement. Any errors and omissions are my own.