NOTES

ARE TRADABLE CARBON EMISSIONS CREDITS INVESTMENTS? CHARACTERIZATION AND RAMIFICATIONS UNDER INTERNATIONAL INVESTMENT LAW

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Implementation of carbon emissions trading schemes such as the European Union's Emissions Trading Scheme requires consideration of how to properly characterize the newly-created emissions credits under various domestic and international law frameworks. Notably absent from the literature on emissions trading is an analysis of whether emissions credits can be characterized as investments, thereby implicating international investment law protections against expropriation and discrimination and giving rise to guarantees of fair and equitable treatment. This Note analyzes the International Centre for Settlement of Investment Disputes's objective definition of "investment" as well as treaty-specific definitions of "investment" and concludes that carbon credits are properly considered investments. Next, the Note considers the types of investor claims that could be brought against host states if carbon credits are treated as investments. Because of the potential costs to host states in defending against such claims, states' willingness to adopt carbon trading schemes may be chilled. This risk of regulatory chill, coupled with the global importance of national measures to combat climate change, counsels in favor of limiting the scope of rights afforded to investors. This Note therefore concludes by setting out a range of proposals for enacting such limits.

INTRODUCTION

Scientific consensus accepts that anthropogenic greenhouse gas (GHG) emissions contribute to climate change.[1] The expected impacts of climate change are far-reaching and catastrophic: increased

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1 *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT 72 (2007), *available at* http://www.ipcc.ch/pdf/assessment-report/ar4/syr/ar4_syr.pdf [hereinafter IPCC SYNTHESIS REPORT] ("Continued GHG emissions at or above current rates would cause further warming and induce many changes in the global climate system during the 21st century. . . ."). The Report states that "[w]arming of the climate system is unequivocal," *id.* at 30, and models a variety of warming scenarios. *Id.* at 45 tbl.3.1.

frequency of extreme hot temperatures and accompanying fatalities, increased coastal damage from floods and storms, melting of snow and ice cover, and destruction or shift of ecosystems, among others.[2]

To address these scientific predictions, the United Nations Framework Convention on Climate Change issued an objective of stabilizing atmospheric GHG concentrations at a level that will avoid these adverse consequences.[3] The 1998 Kyoto Protocol to the Convention was the first step toward operationalizing this goal.[4] The recent Copenhagen conference was intended to strengthen and extend emissions reductions goals and bring nations like the United States into an internationally enforceable reductions scheme, but the conference only produced an agreement to reconvene in 2015 to conduct further negotiations.[5] Although post-Kyoto efforts to strengthen worldwide schemes have stalled, Kyoto has spurred some individual states to adopt their own schemes for reducing GHG emissions. This Note will focus on one such scheme, carbon emissions trading, which is popular among economists because it uses markets to maximize cost efficiency in cutting emissions.[6]

A major consideration for countries establishing carbon emissions trading schemes is the possibility of challenges brought by parties who are forced to internalize new costs for their carbon emissions; such challenges would require regulating states to incur defense costs and possibly damage costs. This Note will focus on the types of challenges that could arise under the international law governing foreign direct investment, a body of law that regulates lasting interests in one

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[2] *See* United Nations Framework Convention on Climate Change art. 2, May 9, 1992, 1771 U.N.T.S. 107 [hereinafter Convention on Climate Change] (setting objective of "stabilization of greenhouse gas concentrations in the atmosphere at a level that would prevent dangerous anthropogenic interference with the climate system"). The Intergovernmental Panel on Climate Change (IPCC) recommends promotion of technology transfer and shift of investment toward sustainable development. IPCC SYNTHESIS REPORT, *supra* note 1, at 59, 68, 73.

[3] Convention on Climate Change, *supra* note 2, art. 2.

[4] Kyoto Protocol to the United Nations Framework Convention on Climate Change, Dec. 10, 1997, 37 I.L.M. 22 (1998) [hereinafter Kyoto Protocol] (stating in preamble that agreement was "[i]n pursuit of the ultimate objective of the Convention [on Climate Change] as stated in its Article 2" (emphasis omitted)).

[5] United Nations Climate Change Conference, Copenhagen, Den., Dec. 7–18, 2009, *Copenhagen Accord*, ¶ 12, FCCC/CP/2009/L.7, *available at* http://unfccc.int/resource/docs/2009/cop15/eng/l07.pdf [hereinafter Copenhagen Accord]. The Copenhagen Accord expresses consensus that a long-term global response is necessary and sets 2015 as the next review year to determine if global action should be more urgent. *Id.* ¶¶ 1, 12.

[6] For a discussion of credit trading and other market mechanisms, and why they may be more efficient than command-and-control regulation, see Bruce A. Ackerman & Richard B. Stewart, *Reforming Environmental Law*, *in* ENVIRONMENTAL LAW AND POLICY 161, 161–67 (Richard L. Revesz ed., 2008).

country (the host state) held by an investor from another country (the home state).[7] A straightforward investment claim by an owner of a carbon-emitting facility against the host state's regulatory scheme would look something like the following hypothetical: An Argentinean owner of a carbon-emitting cement plant in Germany could claim that Germany's requirement that the plant purchase carbon credits constitutes an expropriation of the cement plant, because the regulation renders the costs of plant operation prohibitively high. Such claims are highly relevant to the regulating host state but are not the subject of this Note, as they rely on a relatively straightforward application of existing arbitral case law.[8]

This Note will instead focus on the more interesting and novel question of whether the carbon emissions credits themselves are investments[9] and what ramifications likely would result from such a characterization. This Note makes two primary contributions to the literature on characterizing carbon credits. First, Part II offers a comprehensive analysis to determine whether carbon credits are properly considered investments under the current objective and treaty-specific definitions of that term and concludes that they are.[10] Second, Part III considers the types of claims regarding carbon credits that are likely to arise if carbon credits are treated as investments. Although several commentators have analyzed carbon credits' place in other international schemes such as international trade,[11] accounting and tax,[12] and

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7 *See, e.g.*, THOMAS POLLAN, LEGAL FRAMEWORK FOR THE ADMISSION OF FDI 29–30 (2006) (defining foreign direct investment); Press Release, WTO Secretariat, Trade and Foreign Direct Investment, (Oct. 9, 1996), http://www.wto.org/english/news_e/pres96_e/pr057_e.htm (same).

8 The *Pope & Talbot* tribunal considered just such an issue: A lumber manufacturing company unsuccessfully challenged a Canadian denial of a permit to sell wood across the Canada-U.S. border. Pope & Talbot, Inc. v. Canada, Interim Award, ¶¶ 27–40, 45 (NAFTA Arb. Trib. June 26, 2000), http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/phases.aspx?lang=en#1.

9 See *infra* subsection II.B.2 for a discussion of one commentator's analysis of a subset of the question of whether carbon credits are considered property for purposes of being considered an investment under NAFTA. *See also* Elias Leake Quinn, Comment, *The Solitary Attempt: International Trade Law and the Insulation of Domestic Greenhouse Gas Trading Schemes from Foreign Emissions Credit Markets*, 80 U. COLO. L. REV. 201, 250–51 (2009) (asserting possibility that carbon credits are property and protected investments under NAFTA).

10 This definitional analysis is important because, due to the novelty of emissions trading, there is "no directly relevant precedent to guide efforts to classify these instruments." Jacob Werksman, *Greenhouse Gas Emissions Trading and the WTO*, 8 REV. EUR. COMM. INT'L ENVTL. L. 251, 255 (1999).

11 *See, e.g.*, Robert Howse & Antonia L. Eliason, *Domestic and International Strategies To Address Climate Change: An Overview of the WTO Legal Issues*, *in* INTERNATIONAL TRADE REGULATION AND THE MITIGATION OF CLIMATE CHANGE 48, 53 (2008) (noting that WTO has not yet determined whether WTO regime applies to carbon markets and

property law,[13] this Note is the first to offer an extensive analysis for the investment regime. Carbon credits' various characterizations under these schemes are not mutually exclusive; rather, it is necessary to determine the proper characterization of emissions credits under each regime. Since these regimes operate independently of one another at the international level, owners of carbon credits may pursue relief separately in each of these venues under each regime's applicable legal theories.[14]

Part I of this Note provides background information on the best functioning carbon-trading scheme in the world today, the European Union Emissions Trading Scheme, as well as a primer on foreign direct investment law. Part II then analyzes carbon credits under two different definitions of "investment"; its conclusion that carbon credits are indeed investments means that investment arbitral tribunals have jurisdiction over investor claims invoking investment protections for their carbon credits. Part III then examines what these investor claims would look like by applying the three most universal investment protections—protection against expropriation, prohibition of discrimination, and guarantee of fair and equitable treatment—to regulatory actions that host states might take under a trading scheme. Investors have already proven themselves willing and frequent claimants when it comes to challenging host states' environmental regulations,[15] and international arbitral tribunals have on many occasions struck down

discussing possible characterizations); Werksman, *supra* note 10, at 252 (arguing emissions allowances are not WTO products or services under sovereign state-to-state exchanges of credits but that they indirectly implicate WTO law); Farhana Yamin, *Equity, Entitlements and Property Rights under the Kyoto Protocol: The Shape of 'Things' To Come*, 8 REV. EUR. COMM. INT'L ENVTL. L. 265, 273 (1999) ("It remains unclear . . . whether [credits] can be characterized as 'goods,' 'services' or financial instruments, if indeed they fall into any of these categories.").

12 *See, e.g.*, Javier de Cendra, *Can Emissions Trading Schemes Be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law*, 15 REV. EUR. COMM. INT'L ENVTL. L. 131, 137–38 (2006); M.J. Mace, *The Legal Nature of Emission Reductions and EU Allowances: Issues Addressed in an International Workshop*, 2 J. EUR. ENVTL. & PLAN. L. 123, 132 (2005) (noting that European Community (EC) workshop participants agreed that carbon credits "will largely be addressed by international accounting standards, and by the resolution of taxation issues").

13 *See, e.g.*, Travis Allan & Kathy Baylis, *Who Owns Carbon? Property Rights Issues in a Market for Greenhouse Gases*, 7 CURRENT AGRIC., FOOD & RES. ISSUES 104, 104–07 (2006) (discussing subtleties of property rights and importance of defining rights specifically attached to permits and offsets); Quinn, *supra* note 9, at 251 (discussing whether carbon credits are property for purposes of NAFTA's investment definition); Yamin, *supra* note 11, at 269–70 (referring to entitlements under Kyoto Protocol as "things" instead of "property" and arguing that ambiguity harms market effectiveness).

14 *See generally* Mace, *supra* note 12, at 134 (concluding that legal nature of permits is highly context-specific).

15 *See infra* note 93 and accompanying text (listing such cases).

host states' environmental regulations and awarded large damages to investors.[16] The specter of incurring defense, settlement, or damage costs may chill host states' willingness to adopt a regulatory scheme addressing climate change. This Note therefore shifts in Part IV from descriptive to normative evaluation, arguing that while carbon emissions credits are properly viewed as investments under current definitions, we should limit the scope of protection afforded to credits as investments. With the Copenhagen Conference's failure to expand and strengthen the Kyoto Protocol's worldwide targets, it is crucial that states not have further incentives to delay in creating their own domestic schemes to combat climate change. With this in mind, Part IV.B considers a range of alternatives to enhance states' regulatory space for implementing carbon trading.

I
Background

Section A of this Part provides information on the European Union Emissions Trading Scheme (EU ETS). Since the EU ETS is the best functioning carbon trading scheme in the world today,[17] it will serve as an illustration, in later sections, of investment concepts as applied to a trading scheme. Section B provides basic information on international foreign direct investment law.

A. The European Union Emissions Trading Scheme

The Kyoto Protocol established emissions targets for developed countries.[18] The EU ETS was created to meet these emissions targets,[19] with the EU's fifteen member states at the time of Kyoto's adoption choosing to share a Community emissions reduction target.[20]

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[16] *See infra* Part III (discussing multitude of ways investors may bring claims against host states).

[17] Howse & Eliason, *supra* note 11, at 54.

[18] The Protocol contains a collective target—reduction of collective GHG emissions by five percent under 1990 levels by 2012, *see* Kyoto Protocol, *supra* note 4, art. 3(1), and individual targets for developed, or "Annex I," states. The EU's target is eight percent below 1990 levels, and the United States's target is seven percent below 1990 levels. Only Annex I states were given individual targets because of the principle of "common but differentiated responsibilities." Convention on Climate Change, *supra* note 2, art. 4(1)–(2).

[19] Council Directive 2003/87/EC pmbl. ¶ 5, 2003 O.J. (L 275) 32 [hereinafter Directive 2003/87/EC]; Council Decision 2002/358/EC, art. 2, 2002 O.J. (L 130) 3; J. Robinson et al., Climate Change Law: Emissions Trading in the EU and the UK 33 (2007).

[20] Collective reduction is legal under the European Community Charter, which gives the EC extensive competence over environmental issues, *see* Consolidated Version of the Treaty Establishing the European Community, Dec. 24, 2002, 2002 O.J. (C 325) 107–09 [hereinafter EC Treaty], and competence to enter into international agreements.

The scheme, which began operating on January 1, 2005,[21] affects forty-five percent of the EU's carbon dioxide emissions and approximately 11,500 installations.[22] It constitutes over sixty percent of total carbon trades worldwide and is the largest multi-country, multi-sector trading scheme.[23]

The EU ETS is governed by the Emissions Trading Directive, adopted in 2003,[24] as amended by the 2004 "linking directive" that provides the link between EU ETS credits and credits under Kyoto's flexible mechanisms.[25] The EU ETS is set up in phases, beginning in 2005 with a three-year period and thereafter consisting of five-year periods. Facility operators must monitor and report annual emissions and surrender sufficient credits, each of which represents one metric ton of CO_2 equivalent, to cover their emissions. At the beginning of each phase, credits are allocated to facilities based on Member States' National Allocation Plans (NAPs), which must be approved by the European Commission.[26]

The allocation process involves complex decisions about how many credits to issue in total and what method should be used to allocate credits among firms. As to the first of these issues, the EU's experience during the first phase of the ETS illustrates the problems that result from overallocating emissions credits: The price of credits plunged from a high of thirty euros per credit to below ten euros per credit,[27] largely due to overallocation.[28] As to the second issue, during the initial three-year phase (2005–2007), the Directive required states

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[21] *See* Directive 2003/87/EC, *supra* note 19, art. 4 (stating that carbon permits will be required for certain activities starting on January 1, 2005).

[22] European Commission, *The EU's Emissions Trading Scheme: Progress So Far*, 4 SCI. FOR ENV'T POL'Y (SPECIAL ISSUE) 8 (2008), *available at* http://ec/europa.eu/environment/integration/research/newsalert/pdf/4si.pdf.

[23] ROBINSON ET AL., *supra* note 19, at 35.

[24] Directive 2003/87/EC, *supra* note 19, art. 32.

[25] The Kyoto Protocol has three "flexible mechanisms," all of which generate different types of carbon credits: emissions trading, the clean development mechanism, and joint implementation. Kyoto Protocol, *supra* note 4, arts. 6, 12, 16.

[26] ROBINSON ET AL., *supra* note 19, at 111.

[27] *See* Kati Kulovesi, *The Private Sector and the Implementation of the Kyoto Protocol: Experiences, Challenges and Prospects*, 16 REV. EUR. COMM. INT'L ENVTL. L. 145, 149 (2007).

[28] *See* Onno Kuik & Frans Oosterhuis, *Economic Impacts of the EU ETS: Preliminary Evidence*, *in* CLIMATE CHANGE AND EUROPEAN EMISSIONS TRADING: LESSONS FOR THEORY AND PRACTICE 208, 214 (Michael Faure & Marjan Peeters eds., 2008) (finding that sudden collapse of price that occurred in April 2006 coincided with release of verified emissions data that signaled oversupply of allowances to market). Further contributing to the plummeting price of the credits at the end of the first phase was the nonbankability of credits under the ETS; since credits are not transferable to the next phase, their value declines precipitously as the phase draws to a close. *See* TOM TIETENBERG, EUROPEAN UNION EMISSIONS TRADING SCHEME (EU ETS), 4 nn.18–19 and accompanying text (Aug.

to allocate a minimum of ninety-five percent of credits to regulated facilities free of charge. For the second phase (2008–2012), this percentage decreased to ninety percent. Thus far, member states have not taken advantage of the full auctioning that the regulations allow and have auctioned only four percent of all credits.[29] For the third phase, starting in 2013, experts expect that more than half of the available credits will be auctioned.[30]

Once allocated to regulated facilities, credits may be traded throughout the EU.[31] Trades are recorded in national electronic registries and compiled in the EU's centralized Community Independent Transaction Log (CITL) for oversight.[32] Trades occur in three major types of markets: the over-the-counter, spot, and futures markets.[33] Over-the-counter transactions take place directly between firms without employing brokers; price data on these transactions are confidential. Spot transactions involve immediate exchanges of cash for credits, and futures transactions involve options to buy or sell credits at a set future date at a set price. In terms of financial characterization, credits sold on the futures market are considered financial instruments and are thus subject to regulation.[34] On the other hand, credits sold on the spot market generally are considered commodities and, thus, are not regulated.[35]

29, 2009), http://www.eoearth.org/article/European_Union_Emissions_Trading_Scheme_(EU_ETS). Poland and France included limited banking in the first phase of their NAPs.

29 Europa, Technical Aspects of Emissions Allowance Auctions: Consultation Paper 8 [hereinafter Europa] (unpublished manuscript) http://ec.europa.eu/environment/climat/emission/pdf/cons_paper.pdf.

30 Full auctioning is anticipated for the power sector starting in 2013, and for other sectors auctioning will be phased in and will reach full auctioning by 2020. *See* TIETENBERG, *supra* note 28, at 12 (describing European Commission proposal to phase in allowance auctions for different sectors at different times).

31 *Id*. at 2.

32 This verified information is publicly displayed, making CITL an important source of information for the market. One shortcoming of CITL as a tool for assessing the market is that it does not reflect trades of futures or other financial derivatives, focusing only on physical allowance exchanges. *See* Raphaël Trotignon & Anaïs Delbosc, *Allowance Trading Patterns During the EU ETS Trial Period: What Does the CITL Reveal?*, 13 CLIMATE REP. 6 (2008).

33 *See* Kuik & Oosterhuis, *supra* note 28, at 214 (discussing trades in these markets).

34 Council Directive 2004/39/EC, 2004 O.J. (L 145) 41 [hereinafter Directive 2004/39/EC]; Europa, *supra* note 29, at 10–11.

35 Romania recently departed from this characterization, declaring spot market carbon credits also to be financial instruments. Under Romanian law, this will force all trades into regulated exchanges, effectively eliminating over-the-counter trading. *See* Luiza Ilie & Michael Szabo, *Ruling Kills Romanian OTC Carbon Permit Trading*, REUTERS, Feb. 24, 2010, http://www.reuters.com/article/idUSTRE61N1PF20100224 (describing decision and subsequent debate over its scope and legality under European law).

Participants in the carbon market can be divided into facility operators (who obtain carbon credits for compliance purposes) and participants who do not own underlying facilities, most notably financial institutions such as investment banks and carbon funds.[36] Participants may buy and sell credits not only for operation, but also simply to profit from the rising or falling prices of carbon in the ETS.[37] The Directive also permits the voluntary cancellation of credits,[38] so any entity that purchases or otherwise obtains credits can then cancel them, thereby reducing the number of total EU ETS credits.[39]

B. Background on Foreign Direct Investment Law

International investment law consists of bilateral investment treaties (BITs) and regional agreements, which are both overlaid onto a background of customary international law. The investment regime is unique in that it permits investor-state dispute resolution, where private investors may bring claims against host states. Disputes are typically resolved through ad hoc arbitration, mostly under the World Bank's International Centre for Settlement of Investment Disputes (ICSID) or the United Nations Commission on International Trade Law (UNCITRAL).[40]

Three features of international investment law deserve special mention. First, there is no appellate body or stare decisis, so tribunals are guided but not bound by past decisions.[41] Second, tribunals may

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36 Europa, *supra* note 29, at 11.

37 *See* A. DENNY ELLERMAN & PAUL L. JOSKOW, PEW CENTER ON GLOBAL CLIMATE CHANGE, THE EUROPEAN UNION'S EMISSIONS TRADING SYSTEM IN PERSPECTIVE 18 (2008), *available at* http://www.pewclimate.org/docUploads/EU-ETS-In-Perspective-Report.pdf ("Trading for purposes of compliance will always be a part of observed trading but it can be a small part.").

38 Directive 2003/87/EC, *supra* note 19, art. 12(4).

39 Environmental businesses such as Carbon Retirement have sprung up to take advantage of this provision. *See* Carbon Retirement, http://www.carbonretirement.com/content/how-it-works (last visited June 25, 2010) ("We force industrial companies to pollute less by buying the permits they need and permanently removing them from the system. So rather than buying permits and continuing to pollute, these companies have to reduce their emissions.").

40 *See* Bradford S. Gentry & Jennifer J. Ronk, *International Investment Agreements and Investments in Renewable Energy*, *in* 11 FROM BARRIERS TO OPPORTUNITIES: RENEWABLE ENERGY ISSUES IN LAW AND POLICY 25, 38 (2006–2007) (noting availability of arbitral bodies for international investment disputes).

41 August Reinisch, *The Proliferation of International Dispute Settlement Mechanisms: The Threat of Fragmentation vs. the Promise of a More Effective System?: Some Reflections from the Perspective of Investment Arbitration*, *in* INTERNATIONAL LAW BETWEEN UNIVERSALISM AND FRAGMENTATION: FESTSCHRIFT IN HONOUR OF GERHARD HAFNER 107, 119–20, 122–23 (Isabelle Buffard et al. eds., 2008) (discussing current lack of appeals or stare decisis in international investment law, and suggesting implementation of these principles to achieve more consistent outcomes).

take guidance from past decisions of other tribunals operating under other arbitration rules (e.g., an ICSID tribunal can draw upon prior UNCITRAL cases).[42] Third, because there are no appellate bodies, no cases "control" arbitrations.[43] This means that concepts culled from international arbitrations usually may be discussed as one body of international investment law.

BITs are agreements between two countries to protect investments in each country held by investors from the other country.[44] Each BIT is an independently negotiated agreement, but some countries, such as the United States, have developed model agreements to serve as templates. In 2008, there were 2619 BITs involving at least 179 countries, plus 259 other international investment agreements (such as regional agreements).[45] BITs are most commonly used to establish investment rules between industrialized and developing states.[46] Among industrialized states, regional economic integration organizations (e.g., the European Union) and free trade agreements (e.g., the North American Free Trade Agreement (NAFTA)) often supply investment terms. As a result of these dynamics, the ensuing sections' analysis of BITs largely will be applicable between industrialized and developing countries.[47]

Supplementing these are investment provisions contained in subject-specific treaties, such as the Energy Charter Treaty,[48] and certain World Trade Organization (WTO) agreements such as the Agreement

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[42] *Id.* at 123 ("In an almost schizophrenic fashion, international courts and tribunals regularly first reject any *stare decisis* and then follow their own and others' precedents.").

[43] *Id.* at 119–20 (discussing the lack of appellate bodies in international investment arbitration). In lieu of an appellate body, the ICSID system currently relies on ad hoc annulment committees as its "'correction' tool." *Id.* at 120.

[44] UNITED NATIONS CONFERENCE ON TRADE AND DEV., WHAT ARE BITS?, http://www.unctadxi.org/templates/Page____1006.aspx (last visited Sept. 8, 2010) (defining BITs as "agreements between two countries for the reciprocal encouragement, promotion and protection of investments in each other's territories by companies based in either country").

[45] U.N. Conference on Trade and Dev. [UNCTAD], *Recent Developments in International Investment Agreements (2007–June 2008)*, 2 IIA MONITOR 1, 9 (2008) *available at* http://www.unctad.org/templates/Download.asp?docid=10683&lang=1&intItemID=2095.

[46] Jacob Werksman et al., *Will International Investment Rules Obstruct Climate Protection Policies?: An Examination of the Clean Development Mechanism*, *in* 3 INT'L ENVTL. AGREEMENTS: POL. L. & ECON. 59, 66 (2003).

[47] To reflect this, the scenarios presented use the example of BITs between Germany-Argentina and Germany-Chile. BITs do actually exist between these states, but their specific provisions are not discussed (discussion, instead, centers around the U.S. Model BIT), so these scenarios should be taken as hypothetical.

[48] Energy Charter Treaty art. 10, Dec. 12, 1994, 34 I.L.M. 381, 389–90 (1995).

on Trade-Related Investment Measures (TRIMs)[49] and the General Agreement on Trade in Services (GATS).[50]

Currently, no broadly applicable multilateral investment agreements exist. The Organization for Economic Co-operation and Development's recent effort to establish a Multilateral Agreement on Investment ultimately failed, in part due to concerns that the agreement failed to sufficiently respect host states' interests in imposing environmental regulations on investors.[51]

These investment agreements share several key components, including provisions on expropriation, nondiscrimination, and fair and equitable treatment, which Part III will discuss in detail. Interpretation of these common terms by arbitral tribunals has been variable and is often informed by the arbitrators' sensibilities regarding the relative importance of predictability for investors versus strong regulatory authority for host states.

In order for an investment arbitral tribunal to assume jurisdiction over a dispute, the subject matter of the dispute must qualify as an "investment." In the context of emission credits, the investor protections against expropriation, discrimination, and violation of the fair and equitable treatment standard apply only if they fall under the ambit of the term "investment."

II
Are Carbon Emissions Credits "Investments"?

When an investment claim is brought to arbitration, the tribunal's initial inquiry is into whether the matter before it properly constitutes an investment. The substantive content of the "investment" definition comes from the BIT or regional agreement in place between the investor's home state and the host state. Under most systems of dispute resolution, such as the UNCITRAL system, this treaty content provides the only criteria for what does or does not constitute an investment. Under the ICSID arbitration system, however, an investor must also satisfy the independent jurisdictional requirement within Article 25 of the ICSID Convention. There must be a "legal dispute arising directly out of an investment," which has been interpreted to require that the matter before the tribunal also meet an "objective"

[49] Agreement on Trade-Related Investment Measure Rights, Marrakesh, Morocco, Apr. 15, 1994, *Marrakesh Agreement Establishing the World Trade Organization* Annex 1A, 1868 U.N.T.S. 186.

[50] General Agreement on Trade in Services, Marrakesh, Morocco, Apr. 15, 1994, *Marrakesh Agreement Establishing the World Trade Organization* Annex 1B, 1869 U.N.T.S. 183.

[51] Gentry & Ronk, *supra* note 40, at 34.

investment definition. This Part will analyze carbon credits under both standards, as an ICSID tribunal would do,[52] beginning with the "objective" ICSID definition in Section A and moving to the treaty-specific definitions in Section B. While, under the ICSID rules, both the objective and treaty-specific standards for "investment" must be met, arbitrations under other rules only require the analysis contained in Section B. Under both the objective and treaty-specific definitions, tribunals generally have afforded an expansive reading of "investment."[53] With this interpretive preference in mind, the following analysis concludes that the term "investment" properly encompasses carbon credits.[54]

A. The Objective Requirements for "Investment"

The ICSID Convention does not define investment, but ICSID tribunals have interpreted Article 25 to require that an "objective" investment definition be met in order for the tribunal to exercise jurisdiction, and these tribunals have developed criteria for the objective definition.[55] ICSID tribunals justify imposing an additional objective definition by pointing out that states might otherwise manipulate their treaty definitions to include things that are clearly not investments.[56]

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52 *See, e.g.*, Malaysian Historical Salvors Sdn, Bhd v. Gov't of Malaysia, ICSID Case No. ARB/05/10, Award on Jurisdiction, ¶ 55 (May 17, 2007), http://icsid.worldbank.org/ICSID/FrontServlet?requestType=CasesRH&actionVal=showDoc&docId=DC654_En&caseId=C247 (describing the "double-barrelled test" that requires claimant in ICSID arbitration to show that dispute concerns "investment" under relevant BIT as well as Article 25 of ICSID).

53 A broad definition has been encouraged by institutions such as the World Bank, *see* Pollan, *supra* note 7, at 30, as well as many international investment agreements and arbitral tribunals. *See, e.g.*, Joy Mining Mach. Ltd. v. Arab Republic of Egypt, ICSID Case No. ARB/03/11, Award on Jurisdiction, ¶ 51, (Aug. 6, 2004), 44 I.L.M. 73, 80 (2005) ("A number of ICSID cases have dealt with the question of the definition of investment, confirming generally that a host of activities can be included within this concept.").

54 One commentator has noted that in light of these expansive definitions, carbon credits generated under a different Kyoto flexibility mechanism—the Clean Development Mechanism (CDM)—are likely to be considered investments. *See* Werksman et al., *supra* note 46, at 70 ("[T]he credits resulting from [CDM] project activities are likely to fall under these types of definitions.").

55 *See* Convention on the Settlement of Investment Disputes Between States and Nationals of Other States art. 25, *entered into force* Oct. 14, 1966, 17 U.S.T. 1270, 575 U.N.T.S. 159 [hereinafter ICSID Convention] (defining ICSID jurisdiction to "extend to any legal dispute arising directly out of an investment, between a Contracting State . . . and a national of another Contracting State").

56 One case stated the reasoning as such:

> The parties to a dispute cannot by contract or treaty define as investment, for the purpose of ICSID jurisdiction, something which does not satisfy the objective requirements of Article 25 of the Convention. Otherwise, Article 25 and its reliance on the concept of investment, even if not specifically defined, would be turned into a meaningless provision.

ICSID tribunals have identified five factors that objectively indicate an investment: (1) duration, or at least expectation of a long-term relationship; (2) regularity of profit and return, including expectation of return even when no profits are ever actually made; (3) assumption of risk, which is partly a function of the first two factors; (4) substantiality of the commitment; and (5) significance to the host state's development.[57] No factor or set of factors will prove an investment conclusively.

Application of these factors to the features of carbon credits suggests that an ICSID tribunal would likely characterize the carbon credits as an objective investment. Factor One, duration, involves the most complicated analysis. It raises two issues. First, there is a question of whether the financial-instrument-like aspects of the credits place them in the realm of portfolio investment[58] rather than direct investment. Carbon credits can be likened to a financial instrument because they are intangible assets that are traded on the market like stocks and bonds. As discussed in Part I.A, the extent to which carbon credits are more like financial instruments than direct investments depends partially on where the credits are being traded. Credits traded on the spot market are considered commodities, whereas credits traded on the futures market are considered financial instruments.[59] It is thus possible that credits could be treated differently because of where they are traded—credits transferred through the spot market may receive more robust investment protection than options to purchase carbon credits obtained through the more speculative futures market. However, the question of distinguishing portfolio investment from direct investment may be less crucial than this historical distinction might indicate.[60] In practice, tribunals have taken

Joy Mining Mach. Ltd., ICSID Case No. ARB/03/11, ¶ 50, 44 I.L.M. at 80.

[57] *See Malaysian Historical Salvors Sdn, Bhd*, ICSID Case No. ARB/05/10, ¶ 44 (listing such factors). The tribunal quoted at length Professor Christoph Schreuer's book THE ICSID CONVENTION: A COMMENTARY, which synthesizes these factors. CHRISTOPH H. SCHREUER, THE ICSID CONVENTION: A COMMENTARY 140 (2001).

[58] Portfolio investments are often contrasted with foreign direct investment; portfolio investments cover only acquisition of less than ten percent of voting rights in foreign enterprise. *See* LEGAL ASPECTS OF FOREIGN DIRECT INVESTMENT 20–21 (Daniel D. Bradlow & Alfred Escher eds., 1999).

[59] *See supra* Part I.A (detailing carbon emissions credit trades in these markets).

[60] It remains unclear the extent to which the objective definition of investment under ICSID Article 25 includes portfolio investment. It has been noted that "[p]ortfolio investment[s] . . . are . . . not excluded as a rule . . . ." Giorgio Sacerdoti, *Bilateral Treaties and Multilateral Instruments on Investment Protection*, 269 RECUEIL DES COURS 251, 307 (1997).

a narrow view of what is sufficiently "volatile capital" to be excluded from the definition of "investments."[61]

A second question pertaining to duration is whether credits, which are allotted for periods of five years in the EU ETS,[62] are a sufficiently "lasting" interest to qualify as investments. Although there is no set threshold for how much time is sufficient, it is useful to keep in mind that the "lasting" language is intended to exclude things like stocks, which are bought and sold in a matter of minutes; the five-year duration is therefore likely to be sufficient.[63] Another issue affecting the "lasting" nature of the permits is whether or not the trading scheme contains a banking provision that allows companies to bank excess credits for future years. The EU ETS's lack of a banking feature counsels against investment characterization. Its allocation period of five years is longer than the allocation periods that have been suggested in other schemes that do involve banking provisions, however, which diminishes the need for a banking feature.[64] Finally, the original draft of the ICSID Convention contained a provision defining as an investment "any contribution of money or other asset of economic value for an indefinite period or, if the period is defined, for not less than five years."[65] Although the ICSID Convention did not ultimately include this language, the proposed definition provides a useful starting point for what should be considered a sufficient duration and

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[61] Fedax N.V. v. Republic of Venezuela, ICSID Case No. ARB/96/3, Jurisdiction, ¶¶ 42–43, (July 11, 1997), 37 I.L.M. 1378, 1386–87 (1998).

[62] The EU may increase the allocation period to more than five years for Phase 3. *See Commission of the Council, the European Parliament, the European Economic and Social Committee & the Committee of the Regions, Limiting Global Climate Change to 2 Degrees Celsius: The Way Ahead for 2020 and Beyond*, at 6, COM (2007) 2 final (Jan. 10, 2007). If the allocation period is increased, the duration factor would support investment characterization with additional force.

[63] A tribunal might find, however, that futures in carbon credits are more like stocks, as they too can be traded in a matter of minutes. Indeed, whenever carbon credits are traded for non-compliance purposes the five-year duration of the emission allocation may be less relevant to a tribunal than the rapid exchanges possible in trading.

[64] For example, proposed bills in the United States have contained one-year allocation periods with banking provisions. *See* American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. §§ 721, 725 [hereinafter Waxman-Markey Bill]; America's Climate Security Act of 2007, S. 2191, 110th Cong. §§ 1201, 2201–02 [hereinafter Lieberman-Warner Bill]; *see also* Quinn, *supra* note 9, at 250 (arguing that banking feature contributes to durability of interest and supports finding that carbon credits are property).

[65] *See* Georges R. Delaume, *ICSID and the Transnational Financial Community*, 1 ICSID Rev. 237, 242 (1986) (quoting *Draft Convention: Working Paper for the Legal Committee, September 11, 1964*, *in* 2 Convention on the Settlement of Investment Disputes Between States and Nationals of Other States: Documents Concerning the Origin and the Formulation of the Convention 610, 623 (Int'l Ctr. for Settlement of Inv. Disputes ed., 1968)).

supports the conclusion that EU ETS credits are of sufficient duration.

As to Factor Two, an owner of emissions credits certainly has an expectation of return: The credits can be sold on the market for money. For Factor Three, the owner of an emissions credit accepts the risk that the market for credits will decline and credits will lose their value. Factor Four, which asks whether the commitment is substantial, raises more complicated issues because the degree of commitment could depend on whether the investor purchased the credits or was allotted the credits free of charge. One possibility could be that only credit owners who paid for their credits could be considered investors.[66] As to Factor Five—contribution to the host state's development—a tribunal could find that participation in a carbon emissions trading scheme is crucial to the host state's sustainable development, which is now generally accepted as critical to long-term growth.[67]

Because carbon credits possess many attributes similar to financial instruments (and indeed when traded on the futures market are considered to be financial instruments), the fact that ICSID tribunals have found other types of financial instruments to satisfy the objective investment definition bolsters the conclusion that a tribunal would likewise find that carbon credits satisfy the objective criteria. The ICSID tribunal in *Fedax v. Venezuela* explicitly considered several of the objective factors enumerated above to determine whether promissory notes met the objective investment definition.[68] The evidence that the tribunal relied upon in assessing each factor is instructive when compared to the evidence for carbon credits. First, under Factor One, the tribunal found that the maturity of the notes was relatively long-term because it extended beyond one fiscal year.[69] Under this

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[66] However, this approach would open the ETS to claims of discrimination, discussed further in Part III.B.

[67] *See, e.g.*, Fiona Marshall & Deborah Murphy, *Climate Change and International Investment Agreements* 58 (Aug. 2009) (unpublished draft for discussion), *available at* http://www.iisd.org/pdf/2009/bali_2_copenhagen_iias.pdf (pointing out that "new generation" of international investment agreements identify sustainable development as central aim).

[68] Fedax N.V. v. Republic of Venezuela, ICSID Case No. ARB/96/3, Jurisdiction, ¶¶ 25–43, (July 11, 1997), 37 I.L.M. 1378, 1383–87 (1998).

[69] *See* Keren Halverson Cross, *Arbitration as a Means of Resolving Sovereign Debt Disputes*, 17 AM. REV. INT'L ARBITRATION 335, 349 (2006) (citing *Fedax—Jurisdiction*, ICSID Case No. ARB/96/3, ¶¶ 42–43, 37 I.L.M. at 1386–87; Fedax N.V. v. Republic of Venezuela, ICSID Case No. ARB/96/3, Award, ¶ 31, (Mar. 9, 1998), 37 I.L.M. 1391, 1396 (ICSID 1998)). The Fedax tribunal explained:

> [L]oans qualify as an investment within ICSID's jurisdiction, as does, in given circumstances, the purchase of bonds. Since promissory notes are evidence of a loan and a rather typical financial and credit instrument, there is nothing to prevent their purchase from qualifying as an investment under the [ICSID] Convention in the circumstances of a particular case such as this.

reasoning, the five-year validity of carbon credits would seem to satisfy easily the duration factor. Next, under Factor Four, the tribunal found the capital investment of almost US $600,000 in promissory notes[70] to be substantial; this factor would vary from investor to investor in the case of carbon credits, depending on how many credits were purchased and whether the credits were allocated to the firm for free. Finally, under Factor Five, the tribunal found that the fact that the notes were issued under Venezuela's Public Credit Law was sufficient to show a relationship to the country's economic development;[71] this simple showing that the instruments were part of a broader scheme could also be demonstrated in the case of carbon credits.

In sum, under these "objective" criteria, an ICSID tribunal could find that carbon credits objectively qualify as investments.[72] From here, an ICSID tribunal must move on to a determination of whether the matter also meets the treaty-specific investment definition.

B. *"Investment" Under Treaty Agreements*

All tribunals faced with investor claims must ascertain whether the matters before them constitute "investments" under the terms of the BIT or regional agreement in place between the investor's home state and the host state. This begins and ends the "investment" inquiry for tribunals under arbitral systems such as UNCITRAL. For ICSID tribunals, this inquiry is a necessary second step that must be met along with the "objective" standard discussed above. Although each investment agreement is different, the U.S. Model BIT is illustrative of recognized categories of investment. Like most agreements, the U.S. Model BIT defines "investment" broadly to mean "every asset . . . that has the characteristics of an investment," and lists categories of investment.[73] The subsections of this Part consider the forms under which it might make sense to classify carbon credits: as permits, property, or akin to stocks or bonds. This analysis concludes that credits can be classified under any of these three forms. Furthermore, since BITs' lists of investment forms are illustrative but not exhaustive, the possible classification under several forms supports a finding

Fedax—Jurisdiction, ICSID Case No. ARB/96/3, ¶ 29, 37 I.L.M. at 1384.

[70] *Fedax—Award*, ICSID Case No. ARB/96/3, ¶ 31, 37 I.L.M. at 1396.

[71] *Fedax—Jurisdiction*, ICSID Case No. ARB/96/3, ¶ 42, 37 I.L.M. at 1386.

[72] It is rare that an ICSID tribunal declines jurisdiction on the ground that the matter before it did not constitute an "investment." *See* Michael Waibel, *Opening Pandora's Box: Sovereign Bonds in International Arbitration*, 101 AM. J. INT'L L. 711, 721 (2007) ("Only a few ICSID tribunals have declined jurisdiction for failure of the 'investment' requirement; 'no jurisdiction' is a rare occurrence in ICSID arbitration.").

[73] U.S. MODEL BILATERAL INVESTMENT TREATY art. I (2004), *available at* http://www.ustr.gov/sites/default/files/U.S.%20model%20BIT.pdf [hereinafter US MODEL BIT].

that carbon credits "ha[ve] the characteristics of an investment,"[74] and therefore fall within the broad investment definition even if no category is an exact fit.

1. Licenses, Permits, and Similar Rights

The listed category of investment that most naturally encompasses carbon credits is Article I(g) of the U.S. Model BIT, which pertains to "licenses, authorizations, permits, and similar rights . . . ."[75] However, inclusion of emissions credits in this category is complicated. Licenses falling under part (g) typically are considered to be "administrative law rights based on permission to conduct certain activity in the host state,"[76] but most prominent trading schemes in place today actually define tradable carbon credits as not bestowing any right or entitlement under the public law framework. In other words, the installation does not have the right to emit GHGs.[77] Although commentators have noted that these credits still retain significant legal status under private law because they have value when traded to other installations (meaning that the possessor still has the right to the value of the emissions credit in the market, if not the right to pollute),[78] the lack of an entitlement may undermine a characterization of credits as "licenses or permits" for this subset of "investment." Indeed, a caveat within the U.S. Model BIT explains that one factor in determining whether a particular permit or license should itself be considered an investment is the "nature and extent of the rights that the holder has under the law of the Party"; if no rights are created under domestic law, the license or permits might not be considered an investment.[79] However, such a caveat is not fatal to a finding that the emissions credits are investments, so long as some

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[74] *Id.*

[75] *Id.* Typical examples are mining licenses and petroleum concessions. *See* Pollan, *supra* note 7, at 36 ("[D]isputes concering mining licenses and petroleum concessions account for more than 15 percent of all ICSID cases.").

[76] M. Sornarajah, The International Law on Foreign Investment 192 (1994)

[77] The EU Directive stresses that credits "shall be valid only for the purposes of meeting the requirements of this Directive." Directive 2003/87/EC, *supra* note 19, art. 3(a). The Kyoto Protocol states that it "has not created or bestowed any right, title or entitlement to emissions of any kind on Parties included in Annex I." Conference of the Parties of the Framework Convention on Climate Change, Marrakesh, Morocco, Oct. 29–Nov. 10, 2001, *Report of the Conference of the Parties on its Seventh Session*, pmbl., FCCC/CP/2001/13/Add.2, *available at* http://unfccc.int/resource/docs/cop7/13a01.pdf [hereinafter Marrakesh Accords].

[78] *See* Mace, *supra* note 12, at 124 ("While in each of these cases the public law framework does not establish allowances as a 'right' of any kind, the actual physical reduction in volumes of emissions nevertheless provides a sufficient basis for securing, under a private contract, legal title to future potential rights derived from that activity.").

[79] US Model BIT, *supra* note 73, at n.2.

rights exist under the national laws of the host state. As mentioned above, even if no public law "right to pollute" is conferred, rights may still exist with respect to the credits as a result of their market value. Furthermore, this caveat is not present in all BITs. Indeed, the caveat is only included in a few active U.S. BITs.[80] Moreover, if the host state's BITs with other countries do not include such a caveat, an investor from a state whose BIT with the host state *does* include it may be able to access more protective terms by taking advantage of the ratchet effect of Most Favored Nation treatment.[81]

2. *Tangible or Intangible Property*

Article I(h) of the U.S. Model BIT, which includes property that is "tangible or intangible, movable or immovable" as investments, provides another potential category for emissions credits.[82] Albeit a less direct route than categorizing credits as licenses or permits, the property characterization is essential to qualifying credits as an investment under NAFTA, which does not have a provision listing licenses and permits as an illustrative type of investment.[83] Credits can be viewed as intangible property, and indeed have been so described in

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[80] For example, it is included in the recently concluded U.S.-Uruguay and U.S.-Rwanda BITs. Treaty Concerning the Encouragement and Reciprocal Protection of Investment, U.S.-Rwanda, Feb. 19, 2008, *available at* http://www.ustr.gov/trade-agreements/bilateral-investment-treaties/bit-documents; Treaty Concerning the Encouragement and Reciprocal Protection of Investment 298 n.3, U.S.-Uruguay, Oct. 25, 2004, 44 I.L.M. 268 (2005), *available at* http://www.ustr.gov/trade-agreements/bilateral-investment-treaties/bit-documents.

[81] See *infra* Part III.B for a full explanation of this ratchet effect. In short, the Most Favored Nation provision in a BIT between State *A* and State *B* will require that investors from State *A* be given as favorable of treatment in State *B* as State *B* affords to investors from any state (e.g., State *C*). As a result, an investor from State *A* with an investment in State *B* may be able to access the more favorable terms contained in a BIT between State *B* and State *C*. Otherwise, State *B* would be treating the investor from State *A* worse than investors from State *C* and would thereby violate the Most Favored Nation nondiscrimination principle.

[82] U.S. trading schemes consistently include disclaimers that credits are not property rights to emit. *See* Clean Air Act, 42 U.S.C. § 7651b(f) (2006) (sulpher dioxide trading); Waxman-Markey Bill, H.R. 2454 at § 721(c) (GHG trading). Although these provisions probably foreclose domestic takings claims, international tribunals could find them "intended solely to address takings claims brought by companies pinched by the downward ratcheting of the emissions cap and subsequent reduction in available credits." Quinn, *supra* note 9, at 251. *See generally* Elias Leake Quinn, *Market Convergence Through the Back Door: Inadvertent Integration of the World's Carbon Markets Under NAFTA*, 2 CARBON & CLIMATE L. REV. 181 (2008) (discussing possibility that national treatment measures will be required of United States vis-à-vis Canada should United States implement carbon trading scheme).

[83] *See* North American Free Trade Agreement, art. 1139, U.S.-Can.-Mex., Dec. 17, 1992, 32 I.L.M. 605 (1993) [hereinafter NAFTA] (listing illustrative forms of investment).

the accounting context.[84] One commentator, Elias Quinn, addressed the question of whether carbon credits could be considered "property, tangible or intangible."[85] Defining property as the right to "use, enjoy, and dispose," he argues that for emissions credits, all three of these acts take place in the single act of trading or surrendering a credit.[86]

Another commentator has listed six "common characteristics" of property, and found that they are present for EU ETS credits: (1) clear definition (each credit represents one metric ton of carbon equivalent); (2) identifiability within a clear legislative framework (the EU ETS is the framework); (3) clear ownership (national registries track credit ownership); (4) irrevocability of ownership unless predetermined circumstances apply (credits are generally irrevocable within the five-year time period); (5) free transferability (the ETS Directive allows transfer throughout the EU); and (6) allowance of third party rights (registries allow for third party control over accounts).[87]

3. *Interests in the Enterprise*

A third provision that could encompass carbon credits is the U.S. Model BIT provision on shares, stock, and other forms of equity participation in an enterprise.[88] This category is usually construed broadly to include portfolio investments.[89] Thus, even if a tribunal considered emissions credits to be transient and their tradability more akin to

[84] *See* International Financial Reporting Interpretations Committee (IFRIC), 3 Emission Rights (2004), withdrawn June 2005, *available at* http://www.iasplus.com/interps/ifric003.htm#withdraw (recommending ETS credits be considered "intangible assets" in accordance with definition in International Accounting Standard (IAS) 38). The current definition of "intangible asset" under IAS 38 is "an identifiable non-monetary asset without physical substance." *See* INTERNATIONAL FINANCIAL REPORTING STANDARDS INCLUDING INTERNATIONAL ACCOUNTING STANDARDS AND INTERPRETATIONS AS APPROVED AT 1 JANUARY 2008, no. 38, 1862 § IN5 (Int'l Accounting Standards Bd. 2008) (describing 2008 changes to IAS definitions, which eliminated clause requiring that asset be "held for use in the production or supply of goods or services, for rental to others, or for administrative purposes"). *See generally* Allan Cook, *Emission Rights: From Costless Activity to Market Operations*, 34 ACCT., ORGS. & SOC'Y 456 (2009) (discussing IFRIC's recommendation and considering alternative conceptualizations of carbon credits).

[85] Quinn's discussion was part of an inquiry into whether credits are "products" under NAFTA, *supra* note 83, art. 1139(g). *See* Quinn, *supra* note 9, at 251.

[86] Quinn, *supra* note 9, at 250–51. Quinn also discussed a second way that credits could be considered property—as an operating asset of the underlying emitting facility, as in the *Pope & Talbot* case, in which the tribunal found expropriation because Canada denied a company licenses to sell wood across the Canada-U.S. border. *See* Pope & Talbot, Inc. v. Canada, Interim Award, ¶ 98 (NAFTA Arb. Trib. June 26, 2000), http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/phases.aspx?lang=en#1.

[87] Mace, *supra* note 12, at 125.

[88] NAFTA also contains "interest in an enterprise" language. NAFTA, *supra* note 83, § 1139(c) (defining "investment").

[89] POLLAN, *supra* note 7, at 32.

stocks and bonds than to property, the tribunal may still protect the credits as "investments" under these agreements.[90] In general such portfolio investments have been brought under the scope of investment agreements.[91] Several tribunal decisions support the plain language reading that debt instruments, loans, and shares of stock, as listed in the BITs at issue, are protected investments under these treaties. For example, these types of financial instruments have seen a great deal of recent arbitration in the context of the Argentine debt crisis.[92] Since treaty definitions of investment even extend to these portfolio-type investments, this means that even carbon credits purchased on the futures market (which are financial instruments rather than commodities) will likely receive investment protection.

III
Ramifications of Treating Emissions Credits as Investments

If carbon credits are investments, certain host state actions with respect to the value or allocation of credits could trigger international investment arbitration. Numerous investor challenges to environ-

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[90] A characteristic of portfolio investment that has invited distrust is that they can be extremely volatile, as illustrated by the 1997 Asian Crisis, and that "short-term capital has none of the added benefits [like economic and technological development] brought by FDI . . . . With today's volatility of short-term capital, one cannot make good long-term investments based on this short-term capital." *Id.*, at 33 (quoting Joseph Stiglitz & the World Bank: The Rebel Within 88 (Ha-Joon Chang ed., 2001)) (alterations in original).

[91] "[S]uccessful [foreign direct investment] depends upon a range of associated capital flows, including some forms of short term capital." *Id.* (quoting *World Trade Organization, Working Group on the Relationship Between Trade and Investment*, Note by the Secretariat, WT/WGTI/W/108, ¶ 54 (Mar. 21, 2002)).

[92] *See* Fedax N.V. v. Republic of Venezuela, ICSID Case No. ARB/96/3, Jurisdiction, ¶ 29, (July 11, 1997), 37 I.L.M. 1378, 1384 (1998). ("Since promissory notes are evidence of a loan and a rather typical financial and credit instrument, there is nothing to prevent their purchase from qualifying as an investment under the Convention in the circumstances of a particular case such as this."); LG&E Energy Corp. v. Argentine Republic, ICSID Case No. ARB/02/1, Jurisdiction, ¶¶ 50, 53 (Apr. 30, 2004), http://icsid.worldbank.org/ICSID/Index.jsp (finding that because Article I(1)(a)(ii) of U.S.-Argentina Bilateral Treaty defines investment as "every kind of investment . . . includ[ing] . . . (ii) a company or *shares of stock* or other interests in a company," shares of host state companies owned by foreign claimants are investments) (citation omitted); Sempra Energy Int'l v. Argentine Republic, ICSID Case No. ARB/02/16, Award, ¶ 214 (Sept. 28, 2007), http://icsid.worldbank.org/ICSID/Index.jsp ("Under the broad definition of investment contained in the Treaty, loans are generally to be considered as a protected investment."). A recent case filed against Argentina has also made the claim that sovereign bonds are also investments, and *Fedax* seems to support this argument. For discussion of this pending case and its relation to the others, see Cross, *supra* note 69, at 336. As discussed *supra* Part II.A, tribunals have found that such instruments meet the objective investment definition required for ICSID arbitration.

mental regulations have been brought in recent years,[93] and such challenges are certain to arise under carbon trading. Even uncertainty about how tribunals will resolve these challenges can chill emissions regulation.[94] To provide more concrete terms for the ensuing discussion, I will use the example of an Argentinean investor in carbon credits under Germany's EU ETS National Allocation Plan.[95] The ensuing Sections will evaluate simplified hypothetical situations in which the host state takes action that devalues credits, allocates credits more favorably to domestic companies, and other such actions that may violate investor protections.

A. Expropriation

Expropriation, very roughly, is a government "taking" of an investment, paradigmatically a nationalization of the investment.[96] Customary international law allows states to legally expropriate investments for a public purpose, if done in a nondiscriminatory manner and if affected investors are compensated. Most BITs do not define "expropriation," so customary international law controls.[97] In contrast, NAFTA does define expropriation and includes in its definition "measures tantamount to expropriation."[98] However, tribunals have found that customary international law inherently encompasses measures "tantamount to . . . expropriation," so NAFTA does not expand upon customary international law's protection.[99] To determine whether a host state's actions amount to an expropriation, a tribunal

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93 *See, e.g.*, Ethyl Corp. v. Canada, Jurisdiction Award, 38 I.L.M. 708 (NAFTA Arb. Trib. 1998) (challenging Canada's regulation of particular fuel additive); Marion Unglaube v. Republic of Costa Rica, ICSID Case No. ARB/08/1 (Aug. 16, 2008), http://icsid.worldbank.org/ICSID/FrontServlet?requestType=GenCaseDtlsRH&actionVal=ListPending (challenging Costa Rica's measures to protect species of sea turtle); Metalclad Corp. v. United Mexican States, ICSID Case No. ARB (AF)/97/1, Award (Aug. 30, 2000), 40 I.L.M. 36, (2001) (challenging provision of Canada's Manganese-based Fuel Additives Act); Methanex Corp. v. United States, Final Award on Jurisdiction and Merits, 44 I.L.M. 1345 (2005) (NAFTA Arb. Trib. 2005) (challenging California's ban on methyl tertiary butyl ether); S.D. Myers, Inc. v. Canada, Partial Award, 40 I.L.M. 1408 (NAFTA Arb. Trib. 2000) (challenging Canada's ban on export of PCB wastes).

94 *See infra* Part IV (discussing regulatory chill).

95 Since this Note focuses on carbon credits as investments themselves, the affected investor could simply be a company that has purchased carbon credits to hold as investments and need not own an underlying emitting facility.

96 Werksman et al., *supra* note 46, at 7.

97 RUDOLF DOLZER & MARGRETE STEVENS, BILATERAL INVESTMENT TREATIES 98–99 (1995).

98 NAFTA, *supra* note 83, art. 1110(1).

99 *See* Pope & Talbot, Inc. v. Canada, Interim Award, ¶ 96 (NAFTA Arb. Trib. June 26, 2000), http://www.international.gc.ca/trade-agreements-accords-commerciaux/disp-diff/phases.aspx?lang=en#1 (finding that phrase "tantamount to nationalization or expropriation" does not broaden ordinary concept of expropriation under international law).

must decide, first, how much impact the measure need have on the investment in order to constitute expropriation, and second, whether the public purpose of the regulation should be taken into account.[100]

Tribunals have been fairly consistent as to what level of impact on the investor is "tantamount to expropriation."[101] They consider a regulation to be "tantamount to expropriation" if it effects a "substantial deprivation."[102] The *Pope & Talbot* tribunal phrased the test for "tantamount to expropriation" as being "whether [the] interference is sufficiently restrictive to support a conclusion that the property has been 'taken' from the owner," and found that a mere reduction of the enterprise's profits that left day-to-day operation in the hands of the investor did not constitute an expropriation.[103] The *Metalclad* tribunal also discussed indirect expropriation,[104] which it defined as action that deprives the owner of its "reasonably-to-be-expected economic benefit."[105]

Treatment of the public purpose issue has been more variable, with tribunals announcing a spectrum of rules, ranging from no consideration of the regulation's purpose,[106] to a proportionality test weighing public benefit and investor burden,[107] to full deference to the measure if it has a public purpose and the host state did not make specific commitments to the investor (with no consideration of the

100 Marshall & Murphy, *supra* note 67, at 30. Marshall and Murphy compiled most of the cases discussed in the ensuing sections and applied them to climate change–related activities but did not consider carbon emissions credits as investments.

101 *Id.* at 31.

102 CMS Gas Transmission Co. v. Argentine Republic, ICSID Case No. ARB/01/8, Award, ¶ 262 (May 12, 2005), 44 I.L.M. 1205, 1234 (2005) ("The standard that a number of tribunals have applied in recent cases where indirect expropriation has been contended is that of substantial deprivation.").

103 *Pope & Talbot, Inc*., Interim Award ¶ 102.

104 Metalclad Corp. v. United Mexican States, ICSID Case No. ARB (AF)/97/1, Award (Aug. 30, 2000), 40 I.L.M. 36, (2001) (cited in *CMS Gas Transmission Co.*, ICSID Case No. ARB/01/8 ¶ 262, 44 I.L.M. at 1234 and Occidental Exploration & Prod. Co. v. Ecuador, Award, Case No. UN 3467, I.I.C. 202, ¶ 87 (LCIA 2004)) ("[Expropriation includes] not only open, deliberate and acknowledged takings of property, such as outright seizure . . . , but also covert or incidental interference with the use of property which has the effect of depriving the owner, in whole or in significant part, of the use or reasonably-to-be-expected economic benefit of property . . . .").

105 Using that test, the tribunal found that a locally-adopted environmental regulation and subsequent denial of construction permits to a hazardous waste treatment facility that had previously been fully approved by the federal government was "tantamount to expropriation." *Metalclad Corp.*, ICSID Case No. ARB (AF)/97/1, ¶ 104.

106 *See id.* ¶ 111 (employing "sole effects doctrine," whereby purpose is irrelevant to expropriation inquiry).

107 *See* Tecnicas Medioambientales Tecmed S.A. v. Mexico, ICSID Case No. ARB (AF)/00/2, ¶¶ 122, 151, Award (May 29, 2003), 43 I.L.M. 133, 164, 173 (2004) (balancing public purpose against burden, requiring that burden not be individual or excessive, and finding expropriation where re-licensing of hazardous waste site was denied).

investor's burden).[108] The *Methanex* decision adopted this last approach, which allows host states more flexibility to make and amend environmental laws.[109] The approach reflects a background concern that protecting investors against regulatory change would render public laws irrevocable.[110] Of course, determining which police-power regulations are "permissible" or "commonly accepted" is rife with ambiguity, so the context of the underlying dispute will be critical.[111]

With these rules of interpretation in mind, we can now consider the kinds of actions that could constitute an expropriation of emissions credits. The most straightforward context in which a tribunal could find an expropriation of carbon credits is where the host state makes a regulatory decision that devalues the credits. For example, the host state could decide that the credits' value was based on an exaggerated view of their emissions-reducing benefit and depress the price by flooding the market with additional credits. An even more extreme example would be if the host state chose to abandon emissions trading altogether in favor of some other mode of regulation.

In order to rise to the level of expropriation, the regulatory action must effect an almost complete devaluation of the credits. A mere reduction of value is not sufficient, so a tribunal would be unlikely to find that the scenarios of devaluation described above constitute expropriations. Complete abandonment of the scheme mid-phase, however, would render the investment in credits completely valueless and would meet this standard.

While the first factor—level of deprivation—would support a finding of expropriation where a host state abandons a carbon trading scheme mid-phase, under the second factor—public purpose—a tribunal could still decline to find expropriation. Under the *Methanex*

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108 *See* Methanex Corp. v. United States, Final Award on Jurisdiction and Merits, 44 I.L.M. 1345, 1456–57 (2005) (NAFTA Arb. Trib. Aug. 3, 2005) (finding that California's ban on methyl tertiary butyl ether, of which methanol is key ingredient, was not "tantamount to expropriation" because California had made no commitments).

109 *Id.* at 1456 ("[A] non-discriminatory regulation for a public purpose, which is enacted in accordance with due process . . . is not deemed expropriatory and compensable unless specific commitments had been given . . . to the then putative foreign investor contemplating investment that the government would refrain from such regulation.").

110 *See* Pollan, *supra* note 7, at 36 (noting that this would "defeat[ ] the very notion of public law rights which are granted with public interests in mind," and that such rights became irrevocable "when they are no longer in the public interest" (quoting Sornarajah, *supra* note 76, at 242)). These concerns have also been raised in related contexts such as the potential for U.S. domestic takings claims, *see* Allan & Baylis, *supra* note 13, at 106, and the potential for international expropriation claims for credits generated under other Kyoto flexible mechanisms, *see id.* at 106–07.

111 Saluka Invs. BV v. Czech Republic, Partial Award, I.I.C. 210, ¶¶ 263–64 (UNCITRAL 2006), http://www.pca-cpa.org/showfile.asp?fil_id=105.

mode of interpretation—deference to state regulations that have a public purpose—a tribunal might decline to find expropriation if the abandonment of the trading scheme was done, for example, because the trading scheme was actually increasing, not decreasing, carbon emissions. However, if the host state made specific commitments to the investor that it would not abandon the scheme for the duration of the permits, the public-interest–safety-valve will not protect the state's action.[112]

More complicated situations could arise when the investor bringing the expropriation claim is an operator of a carbon-emitting facility that was directly allocated credits by the host state. One recent case in the EU upheld a German NAP providing for ex post flexibility in adjusting the quantity of credits allocated if other installations in the country closed or emitted less than their baseline.[113] With countries in the EU now free to make ex post alterations to allocations, expropriation could be implicated. For example, suppose that Germany originally allotted an Argentinean corporation in Germany one hundred units of emissions credits to operate a facility based on its past baseline performance. The corporation then slashed its emissions so that it only needed to use forty of these units, planning to sell the rest on the market. In this scenario, a revision by the German government that rescinded these credits could constitute an expropriation of the credits. In this scenario, the government took the rescinded credits in their entirety, so the requisite level of deprivation for expropriation would have been met. As to whether the host state had a public purpose sufficient to excuse the taking without compensation, again the outcome will depend on which interpretive approach the tribunal takes. Under the *Methanex* approach, if the German government could show that it was in the public interest to reallocate credits, the tribunal would disregard the burden placed on the investor unless Germany had made specific commitments to the investor that it would not rescind the permits. Here, in addition to avoiding specific

[112] One form of specific commitment is a stabilization clause in an investment contract that freezes the laws for the investor for the life of the project.

[113] The EU ETS Commission had a policy of rejecting National Allocation Plans (NAPs) that provided for ex post flexibility in adjusting the quantity of allowances allocated, and therefore the Commission rejected the German NAP. Commission of the European Communities, Commission Decision C(2004) 2515/2 final (July 7, 2004), http://ec.europa.eu/environment/climat/pdf/germany_final_en.pdf. The Commission's policy was challenged and overturned by the Court of First Instance in *Federal Republic of Germany v. Comm'n of the European Cmty.*, which allowed Germany to retain regulatory flexibility as long as "the criteria for [adjusting allocations ex post] are laid down in an objective and transparent manner." Summary of the Judgment, Case T-374/04, ¶ 3 (Nov. 7, 2007), http://eur-lex.europa.eu/Result.do?T1=2007&T2=4431&T3=V2&RechType=RECH_recueil&Submit=Search.

commitments not to rescind credits, Germany actually published a rule that alerted installations that if they dropped their emissions by sixty percent below their emissions baseline, their permits would be rescinded. As a result, a tribunal applying the *Methanex* approach probably would not find expropriation. However, a tribunal applying a balancing or investor-burden approach probably would find expropriation.

The inclusion in some NAPs of allocation guarantees for future phases could also lead a tribunal to find expropriation in the EU ETS.[114] These guarantees could further restrict Member States' ability to change allocation decisions, even at the beginning of a new phase. Such guarantees could also exacerbate the issues raised above, as guarantees that promise credits fourteen years into the future could lead to far more detrimental reliance by investors than do the ETS's usual five-year phases.[115]

B. Nondiscrimination: National Treatment and Most Favored Nation

National Treatment and Most Favored Nation (MFN) are nondiscrimination principles that compare the relative treatment of an investor with the treatment of other similarly situated investors. The National Treatment principle guards against protectionism by requiring a tribunal to compare the host state's treatment of the investor with its treatment of its own nationals in like circumstances (for example, Germany must treat the Argentinean investor as well as it treats German investors).[116] In contrast, MFN requires a tribunal to compare the host state's treatment of the investor with investors from third party countries (for example, Germany must treat the Argentinean investor as well as it treats an investor from Chile).[117]

To establish discrimination under either of these principles, the claimant investor must first demonstrate that it or its investment are in "like circumstances" with another investor or investment alleged to

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114 For example, Germany's NAP would guarantee new entrants in the first phase a full allocation of allowances for fourteen years. *See* ROBINSON ET AL., *supra* note 19, at 134 n.66 (describing Germany's NAP).

115 The Commission has suggested that these guarantees would result in differential treatment among installations and could create perverse incentives for investment. *See id.* at 134.

116 NAFTA defines National Treatment in Article 1102: "Each Party shall accord to investors [and investments of investors] of another Party treatment no less favorable than it accords, in like circumstances, to its own investors [or to investments of its own investors] . . . ." NAFTA, *supra* note 83, art. 1102, ¶¶ 1–2.

117 NAFTA defines Most Favored Nation in Article 1103 using the same lexicon. *Id.* at art. 1103, ¶¶ 1–2.

have received better treatment. The "like circumstances" requirement is generally met if the two compared investments compete in the market,[118] although some tribunals have taken slightly broader[119] or narrower[120] approaches. At first glance, it seems clear that any investor in carbon credits will be "in like circumstances" with any other investor in carbon credits since the credits are fungible market substitutes for one another. Although this logic applies in basic compliance trading, two complications may arise in the complex financial markets for credits. First, a tribunal could find that entities owning carbon credits as an element of environmental compliance for an underlying facility are in dissimilar circumstances from an entity that owns carbon credits simply for investment purposes. Second, a tribunal could find that an investor in carbon credits on the spot market (where ownership of credits is immediately transferred) is in different circumstances from an investor in carbon credits on the futures market (where only an option to purchase the carbon credits at a later date has been transferred). Some tribunals have also introduced considerations of public policy into the "like circumstances" inquiry. For example, one tribunal found that a less culturally intrusive development was in dissimilar circumstances from the complaining investor's project.[121] If a tribunal adopting this public policy approach was con-

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[118] S.D. Myers, Inc. v. Canada, Partial Award, 40 I.L.M. 1408, 1483–84 (2001) (NAFTA Arb. Trib. 2000) (providing rationale of lost market share when competitors are treated disparately). This approach borrows from the WTO approach to likeness, laid out in four steps in the *Asbestos* case: (1) the properties, nature, and quality of the products; (2) product use; (3) consumer perception; and (4) international tariff classification. Appellate Body Report, EC—Measures Affecting Asbestos and Asbestos-Containing Products, ¶ 101, WT/DS135/AB/R (Mar. 12, 2001).

[119] Occidental Exploration & Prod. Co. v. Ecuador, Award, Case No. UN 3467, I.I.C. 202, ¶ 183 (LCIA 2004) (finding "like circumstances" for companies in different sectors, since purpose of protecting foreign investors as compared to local producers requires looking more broadly than investment's specific sector).

[120] The *Methanex* tribunal hinted that it might require more similar investments before finding "like circumstances" but on the facts of that case did find like circumstances. Methanex Corp. v. United States, Final Award on Jurisdiction and Merits, 44 I.L.M. 1345, 1445 (NAFTA Arb. Trib. 2005).

[121] In the *Parkerings* case, the project at issue was a proposed parking lot in close proximity to the Old Town area of the city of Vilnius, Lithuania, which had been designated by the United Nations Educational Scientific and Cultural Organization (UNESCO) as a protected administrative region. Because of the project's proximity to this cultural site, the tribunal declined to find "likeness" with another parking garage project that was not so situated. The court stated that "[t]he potential negative impact of [one of the projects] was increased by its considerable size and its proximity with [a] culturally sensitive area" and found this issue to be "decisive." Parkerings-Compagniet AS v. Lithuania, Award, Case No. ARB/05/8, ¶ 335, 392 (2007), http://icsid.worldbank.org/ICSID/FrontServlet?requestType=GenCaseDtlsRH&actionVal=ListConcluded; *see also* Pope & Talbot, Inc. v. Canada, Award on the Merits of Phase 2, ¶¶ 78–79 (2001), http://www.international.gc.ca/trade-agreements-accords-commerciaux/assets/pdfs/Award_Merits-e.pdf (stating that presump-

vinced that success of the discrimination claim would undermine the trading scheme, it might be more prone to make these kinds of distinctions to avoid a discrimination finding.

The "like circumstances" inquiry is a preliminary inquiry that applies to both National Treatment and MFN. I examine, first, the National Treatment inquiry in more detail. There are several contexts in which National Treatment problems could arise. I will analyze these scenarios using the German host state–Argentinean investor framework.

A blatant violation of National Treatment would arise if Germany devalued or withdrew credits it had previously allocated to foreign investors, while not similarly interfering with credits owned by German investors. As long as the "like circumstances" requirement is met, such an action would undoubtedly be a violation of National Treatment. Other issues implicating National Treatment could arise during the initial allocation phase. For example, a German rule that made its "auction" versus "free allocation" decision[122] based on national lines (providing emissions credits to its own nationals free of charge, but requiring foreign companies to purchase credits at auction) would be another blatant form of discrimination. However, most international investment agreements do not guarantee equal treatment in establishing an investment in a country; rights are usually not activated until post-establishment.[123] Thus, a tribunal might treat this initial allocation phase as pre-entry and provide no protection to the foreign investor.

MFN raises many of the same issues discussed above, but it applies in cases in which the host nation favors investors from a third party state over those from the complaining investor's state. One interesting additional issue that MFN raises is the possibility of a ratchet effect. If some BIT definitions include permits as investments that are therefore subject to expropriation and other requirements, this categorization could affect all BITs. To illustrate this ratchet effect, consider a scenario in which Germany has BITs with both Argentina and with Chile. If the Germany-Chile BIT includes permits in its definition of investment, but the Germany-Argentina BIT

tive violation of National Treatment arises when competing enterprises are treated differently, unless nation demonstrates "reasonable nexus to rational [nondiscriminatory] government policies"). A finding that environmentally responsible projects are "unlike" projects with higher environmental costs would allow for host states to treat "greener" projects more favorably without violating investment law.

122 *See supra* Part I.A (discussing auctioning of credits).

123 The proposed draft Multilateral Agreement on Investment would have imposed some pre-establishment limits for screening foreign investors prior to their investing, but these are not common in existing agreements.

excludes permits from its investment definition, the Argentinean investor may be able to gain protection for its permits as investments by invoking MFN to substitute the more investor-favorable provisions from the Germany-Chile agreement. A situation like this occurred in *MTD v. Chile*,[124] in which the tribunal found that the MFN provision in the Malaysia-Chile BIT allowed the Malaysian investor to invoke the fair and equitable treatment provisions from the Chile-Denmark and Chile-Croatia BITs, which were more extensively worded.[125] This means that tribunals have allowed MFN to trump the intentions of a state in signing a BIT.[126] One tribunal has explicitly stated that MFN's purpose is to guarantee that "protection not accepted in one treaty is widened by transferring the protection accorded in another treaty."[127]

C. *Fair and Equitable Treatment*

In addition to the relative treatment standards of MFN and National Treatment, investment agreements also protect investment through an absolute standard that requires a minimum standard of treatment that is "fair" and "equitable," and that does not allow "arbitrary" or "unjustifiable" treatment.[128]

Conduct that is arbitrary, grossly unfair, discriminatory, or lacking in basic due process violates the guarantee of fair and equitable treatment. In a regulatory context, the host country must maintain transparency and may not breach representations reasonably relied upon by investors.[129] The *Tecmed v. Mexico* tribunal spoke specifically to permits, finding that the investor can expect the state not to

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[124] MTD Equity Sdn. Bhd. & MTD Chile S.A. v. Republic of Chile, ICSID Case No. ARB/01/7, Award, ¶¶ 100–104, 197–206 (May 25, 2004), 44 I.L.M. 91 (2005).

[125] *See* Marshall & Murphy, *supra* note 67, at 24 ("This makes an MFN clause a powerful provision as it effectively trumps the intentions of the contracting parties to the [investment agreement].").

[126] For a thorough examination of the use of MFN provisions to import favorable provisions from third-party BITs, as well as discussion of uncertainties regarding whether such importation is permissible for broadening tribunals' jurisdiction, see generally, for example, Dana H. Freyer and David Herlihy, *Most-Favored-Nation Treatment and Dispute Settlement in Investment Arbitration: Just How "Favored" is "Most-Favored"?*, 20 ICSID Rev. For. Inv. L. J. 58 (2005); and Stephen Fietta, *Most Favoured Nation Treatment and Dispute Resolution Under Bilateral Investment Treaties: A Turning Point?*, 8 Int'l Arb. L. Rev. 131 (2005).

[127] RosInvest Co. UK, Ltd. v. Russian Fed'n, Jurisdiction, Case No. V079/2005, I.I.C. 315, ¶ 131 (SCC 2007).

[128] Werksman et al., *supra* note 46, at 7 (internal quotations omitted).

[129] Waste Mgmt., Inc. v. United Mexican States, ICSID Case No. ARB/00/3, Award, ¶ 98 (April 30, 2004), 43 I.L.M. 967, 986 (2004). This definition has also been used in several subsequent cases. Marshall & Murphy, *supra* note 67, at 25–26 (listing cases); *see also* Tecnicas Medioambientales Tecmed S.A. v. Mexico, ICSID Case No. ARB/00/2, Award, ¶ 154 (May 29, 2003), 43 I.L.M. 133, 173 (2004) ("[Investors should] know beforehand any and all rules and regulations that will govern its investments, as well as the goals of the

"arbitrarily revok[e] any . . . permits . . . that were relied upon by the investor to assume its commitments as well as to plan and launch its commercial and business activities."[130] Where the credits themselves are the investment, the reliance on the credits for the value of the investment is by definition satisfied. *Tecmed* is one of the most far-reaching approaches to legitimate expectations; later tribunals have accounted for special circumstances to temper this standard.[131] For example, in *Parkerings v. Lithuania*, Lithuania was in the process of transitioning from the Soviet Union to independence, so "legislative changes, far from being unpredictable, were in fact to be regarded as likely . . . . [N]o expectation that the laws would remain unchanged was legitimate."[132] However, other cases indicate that an unstable economy does not undermine investors' legitimate expectations; rather, respecting those expectations is critical to fair and equitable treatment.[133]

Carbon emissions trading schemes have only emerged in very recent years, and most countries have yet to establish such schemes. Therefore, an arbitral tribunal could find that the newness of these complex schemes indicates that investors should not legitimately expect them to operate without some degree of change and unpredictability. Furthermore, since permits in these schemes are of limited duration, perhaps investors should not have legitimate expectations of consistent value; however, banking schemes and guarantees by the government of certain allocations in future years may raise the level of an investor's expectations and therefore open the host state up to

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relevant policies and administrative practices or directives, to be able to plan its investment and comply with such regulations.").

[130] *Tecmed*, ICSID Case No. ARB/00/2, ¶ 154.

[131] Saluka Invs. BV v. Czech Republic, Partial Award, I.I.C. 210, ¶ 304 (UNCITRAL 2006), http://www.pca-cpa.org/showfile.asp?fil_id=105 ("[I]f their terms were to be taken too literally, they would impose upon host States' obligations which would be inappropriate and unrealistic.").

[132] Parkerings-Compagniet AS v. Lithuania, ICSID Case No. ARB/05/8, Award, ¶ 335, (Sept. 11, 2007), http://icsid.worldbank.org/ICSID/FrontServlet?requestType=GenCaseDtlsRH&actionVal=ListConcluded.

[133] In *Occidental*, a tribunal found "stability of the legal and business framework" to be essential. Occidental Exploration & Prod. Co. v. Ecuador, Case No. UN 3467, Award, ¶ 183, I.I.C. 202 (LCIA July 1, 2004). One tribunal went so far as to find that even in the midst of financial meltdown, "a stable legal and business environment is an essential element of fair and equitable treatment." CMS Gas Transmission Co. v. Argentina, ICSID Case No. ARB/01/8, Award, ¶ 274 (May 12, 2005), 44 I.L.M. 1205, 1235 (2005); *see also* Kate Miles, *International Investment Law and Climate Change: Issues in the Transition to a Low Carbon World* 21 (Soc'y of Int'l Econ. Law, Working Paper No. 27/08, 2008) ("If a social, political, and financial national catastrophe of the kind that took place in Argentina in 2001–2002 is not sufficient to override the expectations of the investor at the inception of the investment, it does not bode well for more routine regulatory changes.").

challenges on these grounds.[134] Stabilization clauses in investment contracts, which insulate investors from subsequent changes in domestic law, may similarly give rise to legitimate expectations for investors and create problems for host states.[135]

Finally, the fair and equitable treatment inquiry balances the investor's legitimate expectations against the host state's legitimate rights to domestic regulation.[136] Thus, a tribunal might make a two-fold finding in favor of regulating host states. First, the preceding discussion indicates that expectations of stability in these new trading schemes may be of questionable legitimacy. Second, a tribunal might also find that the host state's action furthered its interest in reducing GHG emissions, and that this interest outweighs the expectations of the investor. In such a case, a tribunal could decline to find a violation of fair and equitable treatment.

In addition to these substantive tests of fair and equitable treatment, the fair and equitable treatment standard also encompasses a procedural, due-process-like inquiry. Fair and equitable treatment requires adherence to minimum standards of procedure. Tribunals in determining the bounds of this minimum standard have sometimes found states' domestic law protections to fall below the minimum standard, and have found that foreign investors are therefore actually entitled to better process than a state's own nationals receive.[137] This procedural inquiry does not raise any issues unique to carbon credits, so it is sufficient here to note that host states will have to afford a minimum threshold level of process before taking actions that affect investments in carbon credits.

D. Robust or Thin Protection to Carbon Credits as Investments

The previous Sections demonstrate the numerous scenarios in which investors could bring challenges to regulatory actions taken by host states pertaining to their carbon emissions trading schemes. As these sections have shown, arbitral tribunals have taken a range of approaches in deciding these disputes: On one side of the spectrum, primacy is given to investors' rights and predictability in investment, and on the other, primacy is given to the host state's regulatory flexi-

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134 *See supra* note 64 (discussing banking provisions).

135 *See Parkerings-Compagniet AS*, Case No. ARB/05/8 ¶ 332 ("Save for the existence of an agreement, in the form of a stabilisation clause or otherwise, there is nothing objectionable about the amendment brought to the regulatory framework existing at the time an investor made its investment.").

136 Marshall & Murphy, *supra* note 67, at 27.

137 *Id.* at 28 (citing example of ADF Group v. United States, ICSID Case No. ARB(AF)/00/1, Award, ¶ 178 (Jan. 9, 2003), http://icsid.worldbank.org/ICSID/FrontServlet?requestType=GenCaseDtlsRH&actionVal=ListConcluded).

bility. If emissions credits are investments, tribunals can choose whether to extend robust or thin protection to these investments, or something in between.

A tribunal wishing to extend robust investment protection to credits would, in the expropriation context, not consider the purpose of the regulation, as in *Metalclad*, and require only a showing of low level harm to the investor before finding expropriation. In a case dealing with relative discrimination, it could opt to extend the nondiscrimination principle to the pre-establishment phase, and generally treat climate regulation with the suspicion that it is likely a protectionist policy. In the fair and equitable treatment context, it could take the approach that stability of the legal and business environment is essential to meeting the minimum standard of treatment and allow for a broad reading of investors' "legitimate expectations."

Or, arbitral tribunals could only extend thin protections for credits. In the expropriation context, a tribunal could heavily weigh the public interest in establishing carbon markets to facilitate global efforts to combat climate change, using the *Methanex* approach. For relative discrimination, continued application of these principles only in the post-establishment phase could help cabin the reach of discrimination claims, while still allowing these principles to condemn protectionist manipulation of carbon markets by host countries. Finally, in the fair and equitable treatment context, a tribunal can give host states regulatory space to make changes to carbon markets by holding that investors do not have a legitimate expectation, at least in the early stages of a trading scheme, that they be allocated any particular amount of credits or be allocated credits free of charge.[138]

IV
Regulatory Chill and Proposed Solutions

As this Note has demonstrated, the term "investment" is generally afforded an extensive definition that includes tradable carbon-emissions credits. This Part now addresses the normative question that the objective analysis above begs: Is this investment characterization desirable? On the one hand, protecting incentives for companies to invest in permits (not to mention for securing corporate support of domestic legislation) is an important function of international investment law.[139] On the other hand, the investment regime must not

[138] Miles notes that "[t]he expansive scope of the fair and equitable treatment standard . . . needs to be reigned in to apply only to outrageous, egregious, or bad faith conduct." *See* Miles, *supra* note 133, at 26.

[139] *See* Tom Tietenberg, *The Tradable-Permits Approach to Protecting the Commons: Lessons for Climate Change*, 19 Oxford Rev. of Econ. Pol'y 400, 409, *available at* http://

operate so protectively as to chill states from establishing emissions trading.[140]

A. The Pros and Cons of Investment Protection for Credits

First, it is important to describe the benefits derived from investment and investigate whether these apply with the same force to carbon emissions credits as they do to more typical types of investment. Neoclassical economic theory identifies the benefits of foreign direct investment to include (1) influx of capital into the host country; (2) transfer of technology and knowledge; (3) increased competition leading to increased efficiency; and (4) generation of employment opportunities in the host country.[141] Investment in carbon credits satisfies the first of these benefits where credits are auctioned, even when they are granted free of charge and then purchased on the secondary market by a foreign investor. The second benefit does not apply to carbon credits with the same force as it would to classic facility investments. Increased competition in the market under the third benefit probably will take place, since investors will be more eager to purchase credits as investments where they have investment protections. As to the fourth benefit, job creation is not an obvious side effect of treating carbon credits as investments because the jobs created by a carbon-trading scheme would largely be the same whether or not the credits have investment status. In sum, it appears that some but not all of the benefits expected from foreign direct investment are furthered by investment in carbon credits. The existence of these benefits counsels in favor of protecting carbon credits under the investment regime in order to provide the certainty needed to attract such investments. However, the arguments are not as strong as they are for classic investments.

The international investment regime can create two fears that chill host state environmental regulation: (1) fear of capital flight and loss of competitiveness to states with lower environmental standards and (2) fear of incurring the costs of defending the regulation in

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users.uom.gr/~esartz/teaching/genvecon/Permits(Tietenberg).pdf ("Economists have consistently argued that tradable permits should be treated as secure property rights to protect the incentive to invest in the resource. Confiscation of rights or simply insecure rights could undermine the entire process.").

140 *See generally* Nick Mabey & Richard McNally, World Wildlife Fund-UK, Foreign Direct Investment and the Environment: From Pollution Havens to Sustainable Development (July 1998) (cautioning against unchecked economic incentives for higher resource exploitation and pollution).

141 Sherif H. Seid, Global Regulation of Foreign Direct Investment 10–11 (2002).

investor-state arbitration.[142] The first of these chilling effects has not been conclusively proven (doing so would be difficult since the theory relies on the absence of regulations), but some specific examples have been put forward.[143] For example, in both the EU and the United States, there is evidence that legislators discarded ecological tax reform measures for reducing greenhouse gas emissions as a result of industry arguments that such measures will result in capital flight.[144] In the context of carbon credits as investments, this type of chill first comes into play where a state decides not to adopt a definition of investment in its BITs that excludes emissions credits as investments because of fears that potential investors will choose to purchase credits only in countries that reduce investors' economic risk by extending investment protection to emissions credits.

The second of these, fear of investor-state arbitration, is premised on the high costs to host states for defending claims. Investor challenges to state environmental regulations have become "normalized,"[145] and this trend can be expected to continue in the burgeoning field of carbon trading. Costs to host states in these arbitrations average US $1.5–2.5 million, and some awards have reached hundreds of millions of dollars.[146] One commentator notes that "[p]racticing

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142 *See* Miles, *supra* note 133, at 22 (explaining these two mechanisms for regulatory chill).

143 *Id.* at 23.

144 *Id.* Others have pointed out that

> [w]hat Esty and Geradin suggest for the United States holds true for Germany as well. [German] industrial associations have continuously warned policy-makers that further raising environmental standards, especially with respect to a so-called ecological tax reform, would damage the competitiveness of German industry and would lead to capital flight out of Germany. The same holds true for the opposition against the UK climate change levy from British industrial groups.

ERIC NEUMAYER, GREENING TRADE AND INVESTMENT: ENVIRONMENTAL PROTECTION WITHOUT PROTECTIONISM 69–71 (2001) (internal citations omitted); Daniel C. Esty & Damien Geradin, *Environmental Protection and International Competitiveness: A Conceptual Framework*, 32 J. OF WORLD TRADE 5, 19–21 (1998) ("In almost every political debate over environmental policy in the United States, competitiveness concerns are cited as a reason not to move toward tougher standards.").

145 *See* Miles, *supra* note 133, at 3 ("[T]he way in which international investment law is being used in recent investor-state arbitration has the *de facto* effect of constraining governments in their decision-making on complex areas of domestic policy, such as the protection of human health and the environment."); *see also supra* note 93 (listing cases where investors challenged environmental regulations).

146 *See* Miles, *supra* note 133, at 23 (citing GUS VAN HARTEN, INVESTMENT TREATY ARBITRATION AND PUBLIC LAW 123–24 (2007), and Kyla Tienhaara, *What You Don't Know Can Hurt You: Investor-State Disputes and the Protection of the Environment in Developing Countries*, 6:4 GLOBAL ENVTL. POL. 73, 80 (2006)) (providing average cost of awards and documenting recent examples of awards in range of hundreds of millions of dollars).

lawyers do admit that they hear rumours of investors applying informal pressure upon host states—while brandishing an investment treaty as a potential legal stick."[147] The discussion in Part III showed that there are a multitude of avenues for investors to bring claims against host states.

Particularly since the Copenhagen Conference yielded no "mandatory" international scheme, meaning that we must still rely on voluntary national action for reduction of GHG emissions, these concerns about regulatory chill may outweigh the benefits gained from giving carbon credits robust investment protection. At this stage, it is crucial that countries not have further incentives to delay in creating such schemes to combat climate change.

B. A Range of Proposals

Assuming that it is normatively desirable to encourage carbon trading, the question then becomes: How should carbon credits be treated under the investment regime? The following subsections provide a range of proposals designed to provide host states with sufficient regulatory flexibility.

A key component of the success of any of these proposals is broad implementation of the proposed terms and components in investment agreements. The EU's recent entrance into the Treaty of Lisbon, which gives the EU exclusive competence over foreign direct investment,[148] may provide a timely opportunity to incorporate the kinds of terms suggested in the proposals below. The EU will need to develop an EU Model BIT to be applied in future BITs with non-EU states, and it should incorporate some form of the proposals suggested below to help achieve the kind of widespread application of terms needed to avoid issues like the ratchet effect of MFN.

1. Defining Carbon Credits Out of Investment Characterization

The most extreme step that states could take in order to provide maximal regulatory space to implement carbon trading would be to exclude carbon emissions credits from the international investment

[147] Luke Eric Peterson, *All Roads Lead Out of Rome: Divergent Paths of Dispute Settlement in Bilateral Investment Treaties*, *in* INTERNATIONAL INVESTMENT FOR SUSTAINABLE DEVELOPMENT: BALANCING RIGHTS AND REWARDS 123, 139 (Lyuba Zarsky ed., 2005).

[148] Treaty on the Functioning of the European Union art. 207, Dec. 13, 2007, 2008 O.J. (C 115) 140; *see also* Stephen Woolcock, *EU Trade and Investment Policymaking After the Lisbon Treaty*, INTERECONOMICS 22, 22 (2010) (describing Lisbon amendments). The transition to EU-wide BITs is sure to be complicated, and Woolcock hypothesizes that in the short run the EU may "grandfather" existing member state BITs, but in the long run EU-wide BITs will replace the state-by-state model. *Id.* at 24.

regime entirely by specifically exempting them from protections in international investment agreements.[149] The U.S. Model BIT caveat could provide a starting point for such an exclusion, but even the caveat may not provide states with sufficient regulatory flexibility. The current caveat requires an examination of treatment of carbon credits under the host state's national law, an inquiry which itself requires a great deal of interpretation by a tribunal that is not expert in any given state's domestic laws, and which therefore could prove costly. Thus, a more explicit exclusion of carbon emissions credits from treaty investment definitions would be needed, and furthermore, such exclusion will have to be systematically included in all BITs that the host state has with third countries in order to avoid the ratchet effect of MFN.[150]

Such an approach is potentially problematic, however, because if taken to an extreme, host states could engage in rampant discrimination without the check of investment protection to protect foreign investors. However, this problem is not insurmountable because the link between status of credits as investments and protection of credit holders from discrimination is not a necessary one. For example, the Directive establishing the EU ETS contains its own internal guarantees of nondiscrimination, which are not linked to an investment characterization for carbon credits.[151]

2. *Thin Investment Protection from Tribunals*

A more investor-protective method that might nonetheless provide sufficient regulatory flexibility for states is to rely on tribunals to grant only thin protection to carbon credits as investment. As described above in Part III.D, this would entail heavily weighing the public interest against finding regulatory expropriation,[152] applying discrimination principles only to post-establishment actions of the host states, and recognizing only a low level of legitimate expectation by investors in the fair and equitable treatment context.[153] These

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149 Miles suggests that, in general, host states should engage in transparent processes and signaling, with as much advance notice as possible, with regard to regulatory changes in the transition to a low-carbon economy. Miles, *supra* note 133, at 4.

150 Currently, even the United States does not include the caveat in many BITs with other countries.

151 Directive 2003/87/EC, *supra* note 19, at Annex III Criterion 5 ("The plan shall not discriminate between companies or sectors in such a way as to unduly favour certain undertakings or activities . . . .").

152 Miles notes that "[i]t is hoped that the *Methanex* reasoning will prevail in future disputes and that classification of environmental regulation of general application as expropriation will be precluded." Miles, *supra* note 133, at 26 (internal citation omitted).

153 *See supra* note 139 and accompanying text (describing negative effects of having thin protections for credits).

tribunals will likely take into account the seriousness of the climate change issue and seek to provide enough regulatory flexibility to allow some trial and error by states in addressing this problem. Recent developments in WTO arbitration provide hope that tribunals will take such an approach.[154]

The problem with this "thin rights" framework is that it will not eliminate attempts by investors to bring claims, at least in the short-run. Because of the lack of stare decisis or appellate bodies in the international investment regime,[155] even if one or two tribunals find in favor of the host state on a thin protection theory, subsequent tribunals might decide to reverse course. Because of this uncertainty, it will still be worthwhile, at least in the short run, for investors to bring claims to arbitration. Indeed, even if a host state is relatively confident in prevailing on the merits, the high costs of defense[156] may itself chill regulatory activity by host states.[157] A host state must incur these defense costs even if the tribunal finds in favor of the host state either at the jurisdictional or the merits stage. Of course, defense costs will be higher if the tribunal classifies the credits as investments at the jurisdictional phase and only at the merits phase finds in favor of the host state (by finding that there has been no expropriation of the investment, for example). In contrast, if the tribunal finds that carbon credits are not investments at all, the host state must still incur defense costs, but only through the much earlier jurisdiction phase. Because of these costs, merely relying on tribunals to extend only thin protection might not avoid the regulatory chill problem.

3. *Inclusion of an Environmental Exception*

A middle ground between entirely removing investment protections from carbon credits and trusting tribunals to provide for regulatory flexibility under currently available approaches is the inclusion of an environmental exception in international investment agree-

[154] *E.g.*, Appellate Body Report, United States—Import Prohibition of Certain Shrimp and Shrimp Products, ¶¶ 153, 159, WT/DS58/AB/R (Oct. 12, 1998), *available at* http://www.wto.org/english/tratop_e/dispu_e/58abr.pdf (balancing sustainable development and economic development).

[155] *See supra* Part I.B (describing characteristics of international investment arbitration).

[156] *See supra* note 146 and accompanying text (describing arbitration costs).

[157] *See* Esty & Geradin, *supra* note 144, at 19–21 (discussing regulatory chill); *see also* Neumayer, *supra* note 144, at 68–78 (same); Jennifer Clapp, *What the Pollution Havens Debate Overlooks*, 2 Global Envtl. Pol. 11, 16–17 (2002) (same); Miles, *supra* note 133, at 3 (same); Lyuba Zarsky, *Havens, Halos and Spaghetti: Untangling the Evidence About Foreign Direct Investment and the Environment*, *in* OECD, Foreign Direct Investment and the Environment 47, 48 (1999) (same).

ments.[158] An excellent model for such an exception already exists under the WTO regime, in Article XX of the General Agreement on Tariffs and Trade (GATT). This Article allows states to take actions that would otherwise be precluded under the WTO regime if those measures are "necessary to protect human, animal or plant life or health" or "relat[e] to the conservation of exhaustible natural resources."[159] These provisions are not carte blanche for states, however: The *chapeau* to Article XX allows application of the exception only if the measure is not discriminatory or a "disguised restriction" on trade. By allowing states access to the exception only if the regulations are implemented in a nondiscriminatory manner, such a provision strikes a balance between providing sufficient guarantees for investors and allowing for flexibility in host state regulation.

Despite being proposed several times, this GATT environmental exception has yet to be included in an operative investment agreement. Most prominently, the draft Multilateral Agreement on Investment, which ultimately failed to gain sufficient support, contained an environmental exception. The most extensive proposed exception to date is in the International Institute for Sustainable Development's proposed investment agreement, which aims specifically to promote investment in sustainable development.[160] A promising development in this direction, albeit far from the GATT Article XX-type ideal, is Norway's January 2008 draft text of a new model BIT, the commentary to which expresses a goal of "safeguard[ing] the regulative needs of both developed and developing countries . . . ."[161] If Norway and other countries begin to incorporate these safeguards and more specific provisions for environmental protection into active BITs, an important step forward will be made in preserving host states' regulatory space.

CONCLUSION

This Note demonstrates that under current objective and treaty-specific conceptions of "investment," carbon credits are properly char-

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[158] Miles suggests, inter alia, carve-outs for environmental regulation in international investment agreements. Miles, *supra* note 133, at 4.

[159] General Agreement on Tariffs and Trade art. XX, Oct. 30, 1047, 55 U.N.T.S. 194, 262 (as amended and incorporated into Marrakesh Agreement Establishing the World Trade Organization, Annex 1A, Apr. 15, 1994, 1867 U.N.T.S. 190), *reprinted in* THE LEGAL TEXTS: THE RESULTS OF THE URUGUAY ROUND OF MULTILATERAL TRADE NEGOTIATIONS 455 (1999).

[160] Gentry & Ronk, *supra* note 40, at 45.

[161] MINISTRY OF TRADE & INDUS., COMMENTS ON THE MODEL FOR FUTURE INVESTMENT AGREEMENTS 10 (2007), *available at* http://www.regjeringen.no/upload/NHD/Vedlegg/hoeringer/2008/Forklarende%20vedlegg%20(engelsk)%20-%20final.doc.

acterized as "investments." However, exploration of the many possibilities for investor claims against host states and the accompanying likelihood of regulatory chill suggests that extending robust investment protection to carbon credits may not be normatively desirable given the important objective of the realization of a global network of emissions trading. An exception for regulatory measures to protect the environment, modeled off of GATT Article XX, would provide the most balanced protection of environmental regulation and investor interests, although other options—such as explicit exclusion of carbon credits from "investment" definitions or reliance on tribunals to extend only thin protection to carbon credits as investments—should be considered.