

## ARTICLE

# *Defining Emissions Entitlements in the Constitution of the EU Emissions Trading System*

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### **Abstract**

The European Union Emissions Trading System (EU ETS) is the largest mandatory programme of its kind. The entitlements in emissions allowances (emissions entitlements) combine public and private law characteristics: allowances are tradable, commercially valuable regulatory instruments. This dual nature reveals a new interdependency between public and private law mechanisms in the context of climate change policy. This article argues that achieving the requisite level of emissions reductions is contingent on the viability of the emissions market, and that both are dependent on the definition of emissions entitlements. This view is supported by a case study which identifies the practical and serious consequences of the absence of a legal concept of emissions entitlements. The United States (US) Acid Rain Program offers useful lessons on the treatment of emissions entitlements. They can be further defined by analogy with similar rights regimes. Their nature is highly relevant to the emissions market, particularly to the commercial contracts that constitute it.

**Keywords:** European Union, Emissions Trading System, ETS, United States Acid Rain Program, Emissions Allowances, Property Rights

## 1. INTRODUCTION

This article focuses on a specific aspect of the relationship between the main constitutive aspects of the European Union (EU) Emissions Trading System (ETS), namely, the relation between its public policy origins and its private law application. At a regulatory level, the EU ETS framework, notably the EU ETS Directive,<sup>1</sup> has not

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I would like to thank Julia Black for valuable comments on earlier versions of this article. Any errors or omissions remain my own.

<sup>1</sup> Directive 2003/87/EC establishing a Scheme for Greenhouse Gas Emission Allowance Trading within the Community and Amending Directive 96/61/EC [2003] OJ L275/32 (EU ETS Directive).

specified the legal nature of the entitlements that subsist in emissions allowances once they are held and traded in the private market. This is in contrast with commodities such as oil or gas, with which emissions allowances have been compared,<sup>2</sup> where the nature of the rights is uncontroversial, as traditional commodities can be owned as private property. It remains unclear whether emissions allowances give rise to fully fledged private property rights, personal rights (such as licences), or *sui generis* rights with unique characteristics. To demonstrate the practical importance of defining emissions entitlements, the article discusses a case study where the absence of a clear, EU-level definition has negatively impacted on the functionality of the emissions market and potentially on its continued ability to act as a tool of environmental policy.

It should be recognized that the primary objective of the EU ETS is the reduction of emissions over time in line with a decreasing cap.<sup>3</sup> The viability of the emissions market and the maintenance of a price level sufficient to incentivize participants to trade are the means to achieve this goal. Whether emissions prices are low as a result of market oversupply or high because of undersupply at any given time, it is the adequacy of the cap that remains the main prerequisite for achieving the desired levels of emissions reductions in the short term, during a particular trading period. Low or high emissions prices indicate, respectively, that it is either cheaper or more expensive to buy allowances than to invest in emissions abatement methods in order to achieve the reductions stipulated in the cap, and thus demonstrate the flexibility and economic efficiency of emissions trading. It is argued that, in addition to a sufficiently stringent cap, achieving emissions reductions in the long term requires an adequate emissions price level.<sup>4</sup> Low or highly volatile prices have the potential to reduce incentives for investment in low-carbon technologies (which the EU ETS has pledged to encourage as part of the EU's move towards a low-carbon economy),<sup>5</sup> as it would become more expensive or economically risky to invest in abating emissions than to purchase allowances in the market.<sup>6</sup> Conversely (although this has not been a problem encountered in the EU ETS to date), excessively high emissions prices can increase compliance costs and thus reduce support for the scheme from regulated entities.<sup>7</sup> Continued support is important, given that the political acceptability of the EU ETS is premised on its perceived advantages as a flexible, lowest-cost means of reducing emissions which renders it preferable to, notably, an emissions tax.<sup>8</sup>

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<sup>2</sup> E. Doyle, J. Hill & I. Jack, *Growth in Commodity Investment: Risks and Challenges for Commodity Market Participants*, FSA Markets Infrastructure Department, Mar. 2007, at pp. 30–1, available at: [http://www.fsa.gov.uk/pubs/other/commodity\\_invest.pdf](http://www.fsa.gov.uk/pubs/other/commodity_invest.pdf).

<sup>3</sup> Art. 1, EU ETS Directive, n. 1 above.

<sup>4</sup> E.g., C. Kettner, D. Kletzan-Slamanig, A. Köppl, T. Schinko & A. Türk, *Price Volatility in Carbon Markets: Why It Matters and How It Can be Managed*, WIFO Working Papers, 409/2011, at pp. 6–7, available at: [http://angela.koepl.wifo.ac.at/fileadmin/files/price\\_volatility\\_01.pdf](http://angela.koepl.wifo.ac.at/fileadmin/files/price_volatility_01.pdf).

<sup>5</sup> Recital 20, EU ETS Directive, n. 1 above.

<sup>6</sup> Kettner et al., n. 4 above, at p. 7; M. Grubb & K. Neuhoff, 'Allocation and Competitiveness in the EU Emissions Trading Scheme: Policy Overview' (2006) 6(1) *Climate Policy*, pp. 7–30, at 13–4.

<sup>7</sup> Kettner et al., *ibid.*

<sup>8</sup> F. Convery, 'Origins and Development of the EU ETS' (2009) 43(3) *Environmental and Resource Economics*, pp. 391–412, at 392–3.

A key issue raised by the case study is the strength of emissions entitlements when invoked against public authorities. The EU ETS Directive is silent on the permissible extent and consequences of interference by public authorities with emissions entitlements during their period of validity. These points are particularly relevant as the EU ETS moves towards its Phase III (2013–20). Phase I (2005–07) was characterized by a substantial surplus of allowances as a result of regulated installations having over-estimated their free initial allocations. This over-estimation and consequent over-allocation were caused by the unavailability of accurate historical emissions data for regulated installations across the EU.<sup>9</sup> It is worth noting that Phase I was viewed as a trial stage by the European Commission. This phase was essentially intended to create an emissions market that would act as a path towards attaining the reductions prescribed under the Kyoto Protocol.<sup>10</sup> The over-allocation had the dual effect of rendering the emissions market more volatile and driving down the emissions price.<sup>11</sup> Phase II (2008–12) has also been blighted by a surplus of emissions allowances in the market, this time as a result of the economic downturn, which has slowed down industrial production and thus inadvertently reduced the levels of emissions. This is exemplified by the Corus case study, discussed in Part 3 of this article. The EU ETS Directive allows for unused Phase II allowances to be carried over into Phase III, which means that the surplus will potentially continue to affect the stability of the market as well as the emissions price.<sup>12</sup> One way to deal with the problem of carry-over may be to revoke the unused allowances. However, it is argued that the interdependency between the viability of the emissions market and the success of the environmental goal of emissions trading renders it necessary to balance carefully the need for some degree of security of emissions entitlements against the need for regulatory flexibility in adjusting the emissions cap as required for the purposes of environmental policy.

A second key issue highlighted by the case study is the treatment of emissions entitlements in private law. The Corus case raised the question of whether emissions entitlements can form the subject of a trust in the same way as conventional property rights.<sup>13</sup> The range of uses to which emissions entitlements can be put by their holders

<sup>9</sup> E.g., D. Ellerman & B. Buchner, 'The European Union Emissions Trading Scheme: Origins, Allocation, and Early Results' (2007) 1(1) *Review of Environmental Economics and Policy*, pp. 66–87, at 69–70; M. Pohlmann, 'The European Union Emissions Trading Scheme', in D. Freestone & C. Streck (eds.), *Legal Aspects of Carbon Trading, Kyoto, Copenhagen, and Beyond* (Oxford University Press, 2009), pp. 336–49, at 353.

<sup>10</sup> European Commission, Climate Action, 'Questions and Answers on the Revised EU Emissions Trading System' (EU ETS FAQ), answers to questions 3 and 4, available at: [http://ec.europa.eu/clima/policies/ets/faq\\_en.htm](http://ec.europa.eu/clima/policies/ets/faq_en.htm). Kyoto Protocol, Kyoto (Japan), 11 Dec. 1997, in force 16 Feb. 2005, available at: [http://unfccc.int/kyoto\\_protocol/items/2830.php](http://unfccc.int/kyoto_protocol/items/2830.php).

<sup>11</sup> M. Cames, F. Matthes & S. Healy, 'Functioning of the ETS and the Flexible Mechanisms', European Parliament, Directorate General for Internal Policies, Policy Department A: Economic and Scientific Policy, Environment, Public Health and Food Safety, Mar. 2011, at pp. 8–9, available at: [http://www.europarl.europa.eu/meetdocs/2009\\_2014/documents/envi/dv/201201104/20110419\\_envi\\_functioning\\_of\\_ets\\_en.pdf](http://www.europarl.europa.eu/meetdocs/2009_2014/documents/envi/dv/201201104/20110419_envi_functioning_of_ets_en.pdf).

<sup>12</sup> European Commission Communication, 'Analysis of Options to Move Beyond 20% Greenhouse Gas Emission Reductions and Assessing the Risk of Carbon Leakage', COM(2010)265 final, at pp. 3–4, available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2010:0265:FIN:EN:PDF>.

<sup>13</sup> See Part 3 below.

and the level of protection afforded to these entitlements are of particular importance in the sphere of commercial contracts, which transact emissions entitlements between parties and form the basis of the emissions market.<sup>14</sup>

The article is divided into five further sections. Part 2 explains the importance of defining the contents of emissions entitlements in view of the goals of the EU ETS and the means chosen to achieve them. The environmental goal and the market mechanism employed to achieve it highlight the particular interdependency that arises between the public and private law aspects of emissions trading. The EU ETS aims to reduce emissions, a public policy goal the achievement of which is premised on the success of the emissions market. Part 3 discusses a case study that exemplifies observed gaps in the regulatory scheme that arise from the absence of a central legal definition of emissions entitlements. Part 4 examines the treatment of allowances in the United States (US) Acid Rain Program, which bears a number of similarities with the EU ETS, and highlights informative parallels between the legal nature of emissions entitlements in the two regimes. Part 5 introduces the idea that the characteristics of emissions entitlements can best be identified by analogy with a selection of sufficiently similar rights regimes: intellectual property rights, EU milk quotas and spectrum licences. This comparative exercise can assist in determining those characteristics of emissions entitlements that best serve the public policy goals of the EU ETS. Part 6 concludes and indicates a key area impacted upon by the legal categorization of emissions entitlements – namely, commercial contracts – which invites further research on the topic.

## 2. THE IMPORTANCE OF DEFINING EMISSIONS ENTITLEMENTS – THE GOALS OF THE EU ETS

The EU ETS has been described by the European Commission as ‘the cornerstone of the EU’s strategy for fighting climate change’,<sup>15</sup> and is the largest compulsory trading regime of its kind in the world. It has set a precedent for the way in which this kind of incentive-based regulation can work in practice, and has highlighted both the pitfalls and the advantages of moving regulation out of the hands of public authorities and into those of the market. Since the EU and its Member States are signatories to the United Nations Framework Convention on Climate Change (UNFCCC)<sup>16</sup> and its Kyoto Protocol,<sup>17</sup> the EU ETS is the primary Union-wide mechanism for complying with Kyoto requirements.<sup>18</sup>

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<sup>14</sup> See Part 6 below.

<sup>15</sup> EU ETS FAQ, n. 10 above, answer to question 1.

<sup>16</sup> New York, NY (US), 9 May 1992, in force 21 Mar. 1994, available at: <http://unfccc.int>.

<sup>17</sup> Kyoto Protocol, n. 10 above.

<sup>18</sup> Recital 5, EU ETS Directive, n. 1 above; R. Dornau, ‘The Emissions Trading Scheme of the European Union’, in D. Freestone & C. Streck (eds.), *Legal Aspects of Implementing the Kyoto Protocol Mechanisms* (Oxford University Press, 2005), pp. 417–30, at 417.

The EU ETS has inspired other emissions trading schemes: for example, in Australia (due to start in 2015)<sup>19</sup> and in the US State of California (from 2013).<sup>20</sup> As the EU ETS model offers instructive lessons in the sphere of global climate change policy, the tensions in its construction that the article identifies are highly relevant outside the confines of the EU. Achieving the correct balance in the level of emissions entitlements protection against the issuing authority and in the range of permissible uses of such entitlements are universal concerns in this sense. They are likely to challenge regulators in other jurisdictions that have newly adopted trading schemes or plan to do so in the near future. While Australia has granted a relatively generous status to emissions entitlements by designating them as property,<sup>21</sup> California has expressly legislated that they do not constitute property rights.<sup>22</sup> It therefore becomes necessary to provide a legal analysis that can assist in determining why such different classificatory outcomes have been reached, and why these differences matter. Such an analysis must necessarily be conducted with direct reference to the interplay between the public policy aims of, and private law entitlements created by, the EU ETS.

A plethora of academic literature exists on emissions trading, particularly in economics, which addresses topics such as the rationale of economic instruments of regulation and their advantages over traditional command and control regulatory systems.<sup>23</sup> Much has also been written in the sphere of environmental law about the viability of emissions trading as a regulatory tool of environmental protection.<sup>24</sup> All these aspects of emissions trading have been extensively developed since economic instruments became popular in environmental regulation in the 1960s.<sup>25</sup> By contrast, the definition of emissions entitlements has received substantially less attention. The potential importance of the nature of emissions entitlements has been recognized in

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<sup>19</sup> See Australian Government, Department of Climate Change and Energy Efficiency website at: <http://climatechange.gov.au/government/clean-energy-future/legislation.aspx>.

<sup>20</sup> See California Environmental Protection Agency, Air Resources Board website at: <http://arb.ca.gov/cc/capandtrade/capandtrade.htm>.

<sup>21</sup> Clean Energy Act 2011 (Commonwealth) (Cth) s. 103.

<sup>22</sup> California Code of Regulations (Cal. Code Regs.), Title 17, § 95820(c).

<sup>23</sup> E.g., D. Driesen, 'Is Emissions Trading an Economic Incentive Program? Replacing the Command and Control/Economic Incentive Dichotomy' (1998) 55 *Washington and Lee Law Review*, pp. 289–350; T. Tietenberg, 'The Evolution of Emissions Trading', in J. Siegfried (ed.), *Better Living Through Economics* (Harvard University Press, 2010), at pp. 42–58; P. Heindl & A. Löschel, *Designing Emissions Trading in Practice – General Considerations and Experiences from the EU Emissions Trading Scheme (EU ETS)*, ZEW Discussion Paper No. 12-009, 2012, available at: <http://www.econstor.eu/bitstream/10419/56009/1/68858070X.pdf>.

<sup>24</sup> Heindl & Löschel, *ibid.*; T. Dietz, E. Ostrom & P. Stern, 'The Struggle to Govern the Commons' (2003) 302(5652) *Science*, pp. 1907–12; L. Goulder & I. Parry, 'Instrument Choice in Environmental Policy' (2008) 2 *Review of Environmental Economics and Policy*, pp. 152–74.

<sup>25</sup> B. Hansjürgens (ed.), *Emissions Trading for Climate Policy: US and European Perspectives* (Cambridge University Press, 2005), at pp. 5–7.

the first instance by legal practitioners in areas such as commercial contracts.<sup>26</sup> Practitioners have addressed the nature of the entitlements on a case-by-case basis, for instance as regards the treatment of emissions allowances in insolvency.<sup>27</sup> Some writings have assumed that holding emissions allowances gives rise to property rights.<sup>28</sup> This assumption is not founded on a comprehensive legal analysis of the characteristics of emissions entitlements, and may not necessarily further the pursuit of the environmental goals of the EU ETS. The exercise of defining EU emissions entitlements could usefully rely on insights from the treatment of sulphur dioxide (SO<sub>2</sub>) allowances in the US Acid Rain Program, which was a source of inspiration for crafting the EU ETS.<sup>29</sup> The legal nature and characteristics of SO<sub>2</sub> allowances have been discussed extensively in the literature and have also given rise to litigation in the courts, despite express legislative provision that they do not constitute property.<sup>30</sup>

The primary goal of the EU ETS is to reduce emissions in line with Kyoto Protocol commitments through an efficient emissions market, with minimal diminution of economic development.<sup>31</sup> Moreover, it is intended that emissions reductions will increase in the manner considered to be scientifically necessary to avoid dangerous climate change.<sup>32</sup> In addition, the EU ETS pledges to encourage investment in low-carbon technologies so as to achieve long-term emissions reductions.<sup>33</sup> The trading aspect does not of itself bring about emissions reductions. That is the job of the overall cap on emissions, currently set in the EU ETS by way of National Allocation Plans (NAPs) for each Member State and, as of 2013, by the European Commission at a central level. The cap itself is a classic command and control regulatory instrument. The role of the trading aspect is to optimize the achievement of emissions reductions by allowing them to be made where it is cheapest to do so, whether by actually reducing emissions or by buying more allowances in the market.<sup>34</sup>

The EU ETS is a market mechanism that aims to create strong incentives to reduce emissions by delegating the workings of the emissions market to its participants. The logical consequence is that the market needs to function effectively in order for the goal of reducing emissions to be attained. Even if trading *per se* does not achieve emissions reductions, it does indirectly affect the success of environmental regulation.

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<sup>26</sup> E.g., Financial Markets Law Committee (FMLC), 'Emission Allowances: Creating Legal Certainty', Issue 116, Oct. 2009, available at: <http://www.fmlc.org/papers/Issue116Oct09.pdf>.

<sup>27</sup> E.g., M. Wilder, 'Nature of An Allowance', in P. Watchman (ed.), *Climate Change: A Guide to Carbon Law and Practice* (Globe Business Publishing, 2008), pp. 93–109, at 101–2; M. Wemaere, C. Streck & T. Chagas, 'Legal Ownership and Nature of Kyoto Units and EU Allowances', in Freestone & Streck, n. 9 above, pp. 35–58, at 50–2.

<sup>28</sup> E.g., R. Hahn & R. Axtell, 'Re-evaluating the Relationship between Transferable Property Rights and Command-and-Control Regulation' (2007) 8(2) *Journal of Regulatory Economics*, pp. 125–48.

<sup>29</sup> Convery, n. 8 above, at 397 and 407.

<sup>30</sup> See Part 4 below.

<sup>31</sup> Recital 5, EU ETS Directive, n. 1 above.

<sup>32</sup> *Ibid.*, Art. 1.

<sup>33</sup> *Ibid.*, Recital 20.

<sup>34</sup> European Commission, Climate Action, 'Emissions Trading System (EU ETS)', available at: [http://ec.europa.eu/clima/policies/ets/index\\_en.htm](http://ec.europa.eu/clima/policies/ets/index_en.htm).

This is because emissions trading has emerged as a popular way to ‘sell’ environmental protection to regulated entities. It offers them flexibility in the manner of compliance, so that every entity can reduce emissions in the most cost-effective way possible. This flexibility can increase support for the pre-set cap and may increase the likelihood of compliance with it, where the levels of reduction can be gradually lowered over time to reduce the amount of environmentally harmful pollution.<sup>35</sup> The elements of emissions trading which make it popular with regulated entities are precisely those elements that render it necessary to establish some degree of certainty regarding the scope of (and, in particular, any limitations on) the entitlements that can subsist in allowances. The EU ETS is neither a mere regulatory tool, nor is it designed simply to support the workings of command and control regulation in the way that the US trading regimes of the 1970s and 1980s had been.<sup>36</sup> As with the US Acid Rain Program,<sup>37</sup> under the EU ETS a market has developed where emissions allowances are freely tradable between both regulated and non-regulated entities (such as individuals or financial institutions).<sup>38</sup>

A potential strong link exists between the scope of emissions entitlements and the degree of environmental success that the EU ETS can expect to achieve. Reducing emissions to the levels required adequately to tackle climate change by means of a decreasing cap arguably requires a significant limitation on these entitlements. This limitation resides in the possibility of regulatory intervention to adjust the amount of allowances in the market, should the environmental goal of reducing emissions so require. On the other hand, maintaining a viable emissions market becomes important in itself if long-term reductions are to be achieved by way of low-carbon technologies.<sup>39</sup> The outcomes of a viable emissions market and minimal impact on economic development require certainty as to the scope of the entitlements.<sup>40</sup>

However, it should not be assumed that EU emissions entitlements are equivalent to fully fledged property rights. For instance, both the US Acid Rain Program<sup>41</sup> and the Californian emissions trading scheme<sup>42</sup> have expressly denied property status to their respective emissions entitlements. This approach is intended to enable allowance issuing authorities to cancel valid allowances as they deem necessary to further environmental policies, without incurring a corresponding obligation to compensate allowance holders as if they were expropriating property.<sup>43</sup> At the US federal level, the Environmental Protection Agency (EPA) has recognized the risk to market viability posed by arbitrary

<sup>35</sup> N. Keohane, ‘Cap and Trade, Rehabilitated: Using Tradable Permits to Control U.S. Greenhouse Gases’ (2009) 3(1) *Review of Environmental Economics and Policy*, pp. 42–62, at 45–6.

<sup>36</sup> Tietenberg, n. 23 above, at pp. 46–7.

<sup>37</sup> *Ibid.*, at pp. 47–8.

<sup>38</sup> Arts. 12(1) and 19(2), EU ETS Directive, n. 1 above.

<sup>39</sup> *Ibid.*, Recital 20.

<sup>40</sup> In microeconomic theory, exclusivity, enforceability and transferability of rights are the key prerequisites for a market to function effectively: see, e.g., B. Field & M. Field, *Environmental Economics: An Introduction* (McGraw-Hill Irwin, 2009), at p. 203.

<sup>41</sup> § 403(f), 1990 Clean Air Act Amendments, 42 U.S.C. § 7651b(f).

<sup>42</sup> Cal. Code Regs., n. 22 above.

<sup>43</sup> D. Cole, ‘Clearing the Air: Four Propositions about Property Rights and Environmental Protection’ (1999) 10 *Duke Environmental Law & Policy Forum*, pp. 103–30, at 113.

market intervention, and has stated that such intervention will occur only in exceptional circumstances, when made imperative by environmental policy.<sup>44</sup>

By contrast, the EU ETS Directive is silent on the possibility and extent of regulatory intervention in the emissions market. The EPA's example is instructive, and demonstrates a trade-off between the primary goal of emissions reductions and the viability of the emissions market. It is argued that the EU should clarify its position on this trade-off. In particular, supplementation of the current EU ETS legislative framework would be welcomed. Market certainty and thus, ultimately, the environmental goal of the EU ETS would benefit from a defined scope of regulatory intervention and clear rules on how such intervention should be carried out, so that the legitimate economic interests of market participants are not unduly affected. This type of compromise scenario could assist in maintaining market confidence while, at the same time, retaining a sufficient level of regulatory discretion over emissions entitlements in order to pursue the emissions reductions objective.

Moreover, the definition and treatment of property are not centralized at the EU level, but remain the responsibility of Member States. The definition and treatment of emissions allowances, whether as property rights or as another type of right, cannot therefore be easily harmonized across the EU. However, EU-level clarification as to the scope of emissions entitlements would assist Member States in deciding how to define and treat such entitlements in their domestic legal systems. This process appears to have already begun, albeit in a localized fashion: the Commission Regulation establishing an EU Registry from 2013<sup>45</sup> protects *bona fide* purchasers of emissions allowances by enabling them to acquire full title in the allowance even in cases where there is a dispute as to its ownership.<sup>46</sup> The interpretation of what constitutes 'good faith' is left to the Member States.<sup>47</sup> A similar approach could be applied to clarify, for instance, the strength of emissions entitlements as against the issuing authority, while leaving the level of protection afforded to such entitlements to individual Member States.<sup>48</sup>

If it can be agreed that the environmental success of the EU ETS depends on adequately balancing its primary emissions reductions objective with the legitimate economic interests of market participants, the logical next step is to devise an analytical framework for determining the characteristics of emissions entitlements.

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<sup>44</sup> D. Cole, *Pollution and Property: Comparing Ownership Institutions for Environmental Protection* (Cambridge University Press, 2002), at p. 55; J. Dennis, 'Smoke for Sale: Paradoxes and Problems of the Emissions Trading Program of the Clean Air Act Amendments of 1990' (1993) 40 *UCLA Law Review*, pp. 1101–44, at 1137; A. Rosenberg, 'Emissions Credit Futures Contracts on the Chicago Board of Trade: Regional and Rational Challenges to the Right to Pollute' (1994) 13 *Virginia Environmental Law Journal*, pp. 501–36, at 508.

<sup>45</sup> Commission Regulation (EU) No. 1193/2011 establishing a Union Registry for the Trading Period Commencing on 1 January 2013, and Subsequent Trading Periods, of the European Union Emissions Trading Scheme pursuant to Directive 2003/87/EC and Decision 280/2004/EC and Amending Commission Regulations (EC) No. 2216/2004 and (EU) No. 920/2010 [2011] OJ L315/1.

<sup>46</sup> *Ibid.*, Recital 12 and Art. 37(4).

<sup>47</sup> European Commission, Climate Action, 'General Questions and Answers on Registries', answer to question 6, available at: [http://ec.europa.eu/clima/policies/ets/registries/faq\\_en.htm](http://ec.europa.eu/clima/policies/ets/registries/faq_en.htm).

<sup>48</sup> A suggested analytical method for determining the characteristics of emissions entitlements is put forward in Part 5 below, using the UK as an example.



These characteristics should help to achieve the environmental goal of the EU ETS while, at the same time, paying due consideration to the need to preserve a sufficient degree of market viability. In terms of legal categorization, we must be prepared for the possibility that emissions entitlements may not easily fall into pre-existing boxes, such as property rights or personal rights, but could well form a *sui generis* category, which needs to be accurately defined, limited and added to the existing categories of rights.

### 3. THE IMPORTANCE OF DEFINING EMISSIONS ENTITLEMENTS – SOME PRACTICAL LESSONS

This section highlights a number of limitations of the EU ETS that are correlated to the absence of a central legal definition of emissions entitlements. The selected case study illustrates some potentially serious consequences of the observed gaps in the EU ETS regulatory framework. The case study thus demonstrates the need to articulate a clear definition of emissions entitlements, which can best be done using a legal analytical approach of the kind suggested in Part 5.

From February to August 2010, the media reported on the sale of a Teesside steelmaking plant belonging to Corus, the European arm of Tata Steel, to a Thai purchaser.<sup>49</sup> The plant had been mothballed by Corus prior to the sale, but was still set to receive a substantial number of emissions allowances under the EU ETS. Corus wanted to bank these allowances for the following three years so that the purchaser could make use of them. It was also queried whether Corus had to retain the allowances so that they could form part of the sale, or whether it was entitled to sell them on the open market prior to the sale.<sup>50</sup>

The questions that arise here are threefold and relate to (i) the structures of ownership that can apply to emissions allowances; (ii) the situation where an entity reduces or ceases its EU ETS regulated activities; and (iii) the extent of discretion over the use of allowances that their owner can enjoy.

Firstly, if a seller such as Corus wishes to retain emissions allowances for the purpose of passing them on to a purchaser of the EU ETS regulated installation (as permitted by the EU ETS Directive)<sup>51</sup> it is not clear what ownership structure can be used to this effect. It was suggested that Corus should place the allowances in trust for the prospective purchaser pending completion of the sale, but this gives rise to the question of whether emissions allowances can constitute the kind of property that may be the subject of a valid trust, where direct legal ownership of the allowances may not be appropriate for whatever reason.<sup>52</sup>

<sup>49</sup> E.g., T. Webb, 'Corus Agrees to Sell Teesside Plant to SSI of Thailand', *The Guardian*, 27 Aug. 2010, available at: <http://www.guardian.co.uk/business/2010/aug/27/ssi-corus-teesside-sale>.

<sup>50</sup> E.g., M. Szabo, 'Closed UK Steel Plant to Get EU Carbon Permits: Government', *Reuters*, 14 Dec. 2009, available at: <http://uk.reuters.com/article/2009/12/14/btscenes-us-britain-steel-emissions-idUKTRE5-BA2JJ20091214>.

<sup>51</sup> Art. 7, EU ETS Directive, n. 1 above.

<sup>52</sup> The recent judgment of the High Court of England and Wales in *Armstrong DLW GmbH v. Winnington Networks Ltd* [2012] EWHC 10 suggests that in UK law an allowance is capable of forming the subject-matter of a trust: see [52]–[59].

Secondly, the plant had been mothballed by Corus prior to the sale, which meant that it effectively received an over-allocation of allowances that were surplus to its actual production needs. However, the United Kingdom (UK) government held that the plant could retain its allocation of emissions allowances for 2010 as the allowances had already been issued and were thus said to be ‘the property of Corus’.<sup>53</sup> For the duration of Phase II of the EU ETS (until the end of 2012), future allocations would depend on the extent to which any EU ETS regulated activities would continue at the plant, which had not fully ceased to function.<sup>54</sup> For Phase III (from 2013), it has been expressly stated by way of Directive that allocations would be reduced for partially closed installations.<sup>55</sup> The European Commission has also issued a Decision setting out the rules on capacity reductions and closures of installations.<sup>56</sup> The Decision provides that, where an installation has a significant capacity reduction, or where it ceases its operations either entirely or partially, the allowance allocation will be reduced accordingly<sup>57</sup> or, in the case of total cessation, will be withdrawn entirely.<sup>58</sup> It is worth noting that in all three scenarios such adjustments to allocation levels will take place as of the year following that during which the capacity reduction or cessation of operations occurred.<sup>59</sup>

That a revision of the amount of allowances can be carried out for future allocation periods is uncontroversial, but the question remains whether a currently valid allocation can be reduced. Given the regulatory purpose of the EU ETS, it is notable that the cancellation of emissions allowances once issued was excluded as a possible solution to the discrepancy between the number of allowances required to cover production and the number of allowances actually held by the plant. The UK government’s reference to the 2010 allowances as constituting the ‘property’ of Corus is a debatable choice of words. Since the EU ETS Directive neither allows nor prohibits the cancellation of issued allowances, the fact that the UK government chose the route of no cancellation may indicate an unwillingness to interfere with regulatory instruments which have effectively (and perhaps inadvertently) given rise to private property rights in the hands of the holders. However, the issue of whether Corus’ entitlements in the 2010 allowances amount to property rights remains unclear since no legal analysis of the EU ETS framework was carried out.

It appears, therefore, that the cancellation of valid allowances would potentially require a review of the EU ETS legislative framework. Amending the legislation to

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<sup>53</sup> Department for Business, Innovation and Skills, *Government Response to the North East Regional Committee’s Second Report of Session 2009–10 into Teesside Cast Products* (BIS, *Government Response*), Cm 7868, 7 Apr. 2010, at p. 7, available at: <http://www.official-documents.gov.uk/document/cm78/7868/7868.asp>.

<sup>54</sup> Art. 7, EU ETS Directive, n. 1 above.

<sup>55</sup> Art. 1(8), Directive 2009/29/EC amending Directive 2003/87/EC so as to Improve and Extend the Greenhouse Gas Emission Allowance Trading Scheme of the Community [2009] OJ L140/63.

<sup>56</sup> Commission Decision of 27 April 2011 Determining Transitional Union-Wide Rules for Harmonised Free Allocation of Emission Allowances pursuant to Article 10a of Directive 2003/87/EC [2011] OJ L130/1.

<sup>57</sup> *Ibid.*, Arts. 21 and 23.

<sup>58</sup> *Ibid.*, Art. 22.

<sup>59</sup> *Ibid.*, Arts. 21(3), 22(3) and 23(2)–(4).

expressly provide for such cancellation is a possible solution to tackle the current surplus, which is negatively affecting the emissions price. On the other hand, if such cancellation is carried out with little prior notice, it could wreak havoc in the market. It would run counter to the idea of certainty of rights, which is viewed by economists as necessary for the continuity of a viable emissions market.<sup>60</sup> While the primary goal of the EU ETS remains emissions reductions, it has also become necessary to support the viability of the emissions market as an effective means of achieving the ultimate environmental objective. When considering the option of legislative change, the Commission should consequently bear in mind that the environmental success of the EU ETS has come to be measured by reference to the functionality of the emissions market, as well as to the levels of emissions reductions.

Thirdly, the question arose as to how Corus could use the allowances appertaining to the plant. If Corus were entitled to all its allowances for 2010–12, despite the reduction in activity at the plant, it would be able to sell in the market those which have been freed up as a result of the reduction in activity (as opposed to making them part of the sale–purchase transaction for the plant), and make a profit. This is not technically illegal, but the issue arose whether doing so would comply with the environmental goals and spirit of the EU ETS, as Corus would effectively be profiting from the over-allocation of emissions allowances without having made any real effort to cut emissions.

This highlights a potentially significant contrast between incidental emissions reductions caused by, for instance, an economic crisis, and emissions reductions achieved by developing greener technologies. Does it matter how the reductions are attained, so long as they are attained? This article posits that, in the context of systematic, focused and long-term environmental policy, it does. The very purpose of the EU ETS is to allow installations whose levels of emissions fall below the corresponding number of allowances that have been allocated to them to sell these allowances in the market. However, the EU ETS envisages that this reduction in emissions levels would occur as installations develop greener, more innovative technologies of production that pave the way towards low-carbon economies in the Member States.<sup>61</sup> The development, and eventual wide use, of greener technology is thus presented as the long-term goal of emissions trading, rather than simply trying to achieve reductions wherever possible without a concerted strategy and in reliance upon incidental decreases in industrial production. A recent report by the UK Committee on Climate Change highlighted the risk that reduced production caused by the economic recession would lower the price of emissions allowances. This may disincentivize self-scrutiny and investment in green technologies by making it more attractive to continue to purchase allowances without any effort to improve the environmental credentials of production.<sup>62</sup>

Investment in cleaner technologies and the consequent move to a low-carbon economy have been identified as wider environmental policy goals by the EU. The EU

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<sup>60</sup> Field & Field, n. 40 above.

<sup>61</sup> Recital 20, EU ETS Directive, n. 1 above.

<sup>62</sup> Parliament Committee on Climate Change, 'Meeting Carbon Budgets: The Need for a Step Change', Oct. 2009, at p. 17, available at: <http://downloads.theccc.org.uk/docs/21667%20CCC%20Report%20Intro.pdf>.

ETS forms part of a wider regulatory scheme, namely the EU Climate and Energy Package, which has two aims: (i) reducing emissions, and (ii) increasing the use of renewable energy. In the words of the European Commission, the Package represents ‘an integrated approach to climate and energy policy that aims to combat climate change and increase the EU’s energy security while strengthening its competitiveness’, so that Europe can transform itself into ‘a highly energy-efficient, low carbon economy’.<sup>63</sup> The EU ETS does not exist in a regulatory void where all that matters is achieving cost-effective emissions reductions in line with a decreasing cap, irrespective of whether the reductions are achieved by incidental falls in emissions or concerted efforts to move to a low-carbon economy. The European Commission has remarked that the allowances surplus, *inter alia*, has already helped to bring the 2020 emissions target within reach. Paradoxically, the ensuing low emissions prices have compromised the low-carbon transformation intended by the Package, which ‘was expected to be a key driver for [greenhouse gas] emission reductions triggering innovation, and growth and job creation in the low carbon technology industries’.<sup>64</sup> It has been noted that climate policy needs to complement and support energy policy, and an inadequate emissions price signal can lead to conflict between the two. So far, the short-term volatility of the emissions price and the lack of a long-term price signal have limited investment in low-carbon solutions. The EU ETS can assist energy policy by encouraging low-carbon investment by way of a long-term price signal.<sup>65</sup>

In addition, one of the amendments<sup>66</sup> to the EU ETS Directive states that:

more predictability should be ensured and the scope of the [emissions trading] system should be extended by including new sectors and gases with a view to both reinforcing a carbon price signal necessary to trigger the necessary investments and by offering new abatement opportunities, which will lead to lower overall abatement costs and the increased efficiency of the system.<sup>67</sup>

In wider terms, the European Commission’s Roadmap for moving to a low-carbon economy<sup>68</sup> also requires a stable price signal that can act as a powerful driver for technological innovation:

The EU ETS will be critical in driving a wide range of low carbon technologies into the market, so that the power sector itself can adapt its investment and operational strategies to changing energy prices and technology. For the ETS to play this role on the identified

<sup>63</sup> European Commission, Climate Action, ‘The EU Climate and Energy Package’, available at: [http://ec.europa.eu/clima/policies/package/index\\_en.htm](http://ec.europa.eu/clima/policies/package/index_en.htm).

<sup>64</sup> European Commission, ‘Analysis of Options Beyond 20% GHG Emission Reductions: Member State Results’, SWD(2012)5 final, at pp. 5–6, available at: [http://ec.europa.eu/clima/policies/package/docs/swd\\_2012\\_5\\_en.pdf](http://ec.europa.eu/clima/policies/package/docs/swd_2012_5_en.pdf).

<sup>65</sup> B. Leguet, N. Fujiwara & A. Georgiev, ‘The EU Emissions Trading Scheme as a Driver for Future Carbon Markets’, Centre for European Policy Studies, 2012, at pp. viii–ix and 27–8, available at: <http://www.ceps.eu/book/eu-emissions-trading-scheme-driver-future-carbon-markets>.

<sup>66</sup> Directive 2009/29/EC, n. 55 above.

<sup>67</sup> *Ibid.*, Recital 8.

<sup>68</sup> European Commission, ‘A Roadmap for Moving to a Competitive Low Carbon Economy in 2050’, COM (2011)112 final, available at: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=COM:2011:0112:FIN:EN:PDF>.

pathway to 2050, both a sufficient carbon price signal and long-term predictability are necessary.<sup>69</sup>

This preoccupation with moving to a low-carbon economy is logical: developing cleaner technologies is the long-term way of achieving emissions reductions. Emissions reductions will not continue indefinitely on an incidental basis, based on a decrease in production. Once any factors leading to incidental reductions (for example, the economic crisis) are no longer present, low-carbon technologies will need to be in place so as to continue to achieve the requisite reductions while, at the same time, permitting economic growth.

#### 4. DEFINING EMISSIONS ENTITLEMENTS: LESSONS FROM THE US ACID RAIN PROGRAM

The US Acid Rain Program has served as a source of inspiration for the EU ETS.<sup>70</sup> The US trading regime was created by Title IV of the 1990 Clean Air Act Amendments<sup>71</sup> with the purpose of reducing SO<sub>2</sub> emissions responsible for acid rain by 10 million tonnes below 1980 levels. The regime was divided into two phases. In Phase I (from 1995), emissions allowances were allocated to the 110 most polluting plants in 21 states, representing approximately half of their historic emissions. In Phase II (from 2000), emissions from all but the smallest polluters would be further reduced in line with centrally set caps.<sup>72</sup> The model employed is cap-and-trade, with allowances (each equivalent to one tonne of SO<sub>2</sub>)<sup>73</sup> being freely tradable.<sup>74</sup> It has generally been considered a success as it has achieved emissions reductions at significantly lower costs.<sup>75</sup>

Unlike the EU ETS Directive, the Clean Air Act offers a legal definition of emissions allowances: they are limited authorizations to emit SO<sub>2</sub>, and do not constitute property rights. Moreover, the government has the authority to terminate or limit such authorizations.<sup>76</sup> One of the possible reasons for these provisions may be to address the concerns of environmentalists that granting property rights to pollute would be morally dubious.<sup>77</sup> A more practical purpose of the provisions is to reserve sufficient regulatory discretion to interfere with emissions allowances as is necessary to pursue environmental policy, while at the same time protecting the US government from the

<sup>69</sup> Ibid., at pp. 6–7.

<sup>70</sup> Convery, n. 8 above, at pp. 397 and 407.

<sup>71</sup> 42 U.S.C. § 7651.

<sup>72</sup> U.S. Environmental Protection Agency, Clean Air Markets, ‘SO<sub>2</sub> Reductions and Allowance Trading under the Acid Rain Program’, available at: <http://www.epa.gov/airmarkets/progsregs/arp/s02.html>.

<sup>73</sup> 1990 Clean Air Act Amendments, n. 71 above, § 7651a(3).

<sup>74</sup> Ibid., § 7651b(b).

<sup>75</sup> E.g., L. Chestnut & D. Mills, ‘A Fresh Look at the Benefits and Costs of the US Acid Rain Program’ (2005) 77 *Journal of Environmental Management*, pp. 252–66, at 253–5; G. Chan, R. Stavins, R. Stowe & R. Sweeney, ‘The SO<sub>2</sub> Allowance Trading System and the Clean Air Act Amendments of 1990: Reflections on Twenty Years of Policy Innovation’, Harvard Kennedy School, RPP-2012-01, Jan. 2012, available at: [http://www.hks.harvard.edu/m-rcbg/rpp/Working%20papers/RPP\\_2012\\_01.pdf](http://www.hks.harvard.edu/m-rcbg/rpp/Working%20papers/RPP_2012_01.pdf).

<sup>76</sup> 1990 Clean Air Act Amendments, n. 71 above, § 7651b(f).

<sup>77</sup> M. Gehring & C. Streck, ‘Emissions Trading: Lessons from SO<sub>x</sub> and NO<sub>x</sub> Emissions Allowance and Credit Systems, Legal Nature, Title, Transfer, and Taxation of Emission Allowances and Credits’ (2005) 35 *Environmental Law Reporter*, pp. 10219–35, at 10221–2.

possibility of compensation claims from entities whose allowances are cancelled or confiscated.<sup>78</sup> If the allowances were considered to be property rights, regulatory interference once they had been allocated may be capable of amounting to a taking under the Fifth Amendment of the US Constitution and be susceptible to a claim for fair value compensation.<sup>79</sup> Regulators thus wished to retain discretion over when to intervene in the trading system, either to increase or decrease the number of allowances in circulation, free from the liability associated with expropriating property rights.

Despite the apparently strict categorization of emissions allowances as limited authorizations to pollute, and specifically not property rights, US case law has recognized a number of characteristics of allowances that are very similar to property. According to the legislative framework itself, they are freely tradable.<sup>80</sup> In *Ormet Primary Aluminium Corp. v. Ohio Power Co.*,<sup>81</sup> which involved the assertion of a proprietary interest in certain allowances, the court reiterated that such instruments were not property rights, but had been intended only to be tradable like any other commodity. However, the court also added that, in creating a system of tradable allowances, Congress intended that disputes between allowance holders be resolved in the same manner as other private commercial disputes, namely in federal courts as opposed to being resolved through the involvement of the EPA.<sup>82</sup> This view suggests that disputes over allowances, while not disputes over property rights, are effectively private disputes over ownership. This is because the Clean Air Act Amendments state that no acid rain permit will be issued unless the applicant files a certificate confirming that allowances will be deemed to be held or distributed ‘in proportion to each holder’s legal, equitable, leasehold, or contractual reservation or entitlement’.<sup>83</sup> The Act is thus said to provide for divided ownership of emissions allowances in a similar way to that which may exist for property.<sup>84</sup> In *Clean Air Markets Group v. Pataki*<sup>85</sup> it was held that state law-triggered diminution in value of these allowances constitutes injury that is in fact sufficient to demonstrate standing.<sup>86</sup>

It would therefore seem that, although SO<sub>2</sub> emissions allowances are not property rights as against the government, they exhibit many characteristics of property rights as between trading parties. An entity can hold and transfer allowances as well as use them to emit corresponding amounts of SO<sub>2</sub>,<sup>87</sup> and it can exclude others (though not the government) from interfering with these entitlements.<sup>88</sup> This scenario has been

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<sup>78</sup> Cole, n. 43 above.

<sup>79</sup> US Constitution, Amendment V: Private property is not to be taken ‘without just compensation’. This can include regulatory takings: *Pennsylvania Coal Co. v. Mahon*, 260 US 393 (1922).

<sup>80</sup> 1990 Clean Air Act Amendments, n. 71 above, § 7651b(b).

<sup>81</sup> 98 F. 3d 799 (4<sup>th</sup> Cir. 1996).

<sup>82</sup> *Ibid.*

<sup>83</sup> 1990 Clean Air Act Amendments, n. 71 above, § 7651g(i)(1).

<sup>84</sup> Gehring & Streck, n. 77 above, at p. 10222.

<sup>85</sup> 194 F. Supp. 2d 147 (NDNY 2002).

<sup>86</sup> *Ibid.*

<sup>87</sup> 1990 Clean Air Act Amendments, n. 71 above, § 7651b(b).

<sup>88</sup> Cole, n. 43 above, at pp. 113–4; Cole, n. 44 above, at p. 53–4.

referred to as creating de facto property rights between private parties.<sup>89</sup> It has also been viewed as premised on the confusion between property rights in something and the thing itself: the thing (the allowance) is not property, but property rights can exist in it nonetheless.<sup>90</sup> It appears that the risk of regulatory interference has not negatively affected the SO<sub>2</sub> emissions market. This is largely attributed to the EPA's expressed intention to treat allowances as if they were property rights, save in exceptional circumstances, which means that the risk of expropriation is, in practice, remote.<sup>91</sup>

By analogy with the US scenario, EU allowances could be seen as de facto property rights, or at least as exhibiting certain traits of property rights. They can be held and traded. They can also form the subject of contracts between private parties, are enforceable as between them and can form the subject of litigation on, for instance, contractual grounds.<sup>92</sup> Their enforceability against the regulator is less clear than it is in the case of US allowances; the EU ETS Directive does not expressly state whether valid and allocated allowances may be terminated or limited. It appears that, in the EU, interference can occur in respect of future trading periods (for example, to reduce the allowances for installations where activity has decreased or ceased)<sup>93</sup> but not in respect of already allocated allowances, which have been viewed as effectively giving rise to property rights.<sup>94</sup> This position differs from that taken by the EPA, which has pledged not to interfere with allowances save in exceptional cases. The EU approach may still leave open the possibility that regulatory interference can theoretically occur with allowances that have already been allocated.

It is also not clear whether the concern with compensation, which figures so strongly in the US model, directly translates to the EU and its Member States. In German constitutional law, for instance, there is a distinction between expropriations of property (which always attract compensation)<sup>95</sup> and rules determining the content and limits of ownership (which do not automatically give rise to a right to compensation).<sup>96</sup> While under US law interference with allowances (if considered property) would amount to a regulatory taking and thus give rise to compensation,<sup>97</sup> it may be that, were interference with EU allowances to be tested in Germany, it could be construed as falling within the less interventionist category: namely, defining the entitlements in emissions allowances. The concern regarding compensation had considerable influence on the

<sup>89</sup> Gehring & Streck, n. 77 above, at p. 10224.

<sup>90</sup> Cole, n. 43 above, at pp. 113–4; Cole, n. 44 above, at p. 53–4.

<sup>91</sup> Cole, n. 44 above, at p. 55; Dennis, n. 44 above, at p. 1137; Rosenberg, n. 44 above, at p. 508.

<sup>92</sup> E.g., *INEOS Manufacturing Scotland Ltd v. Grangemouth CHP Ltd and Another* [2011] EWHC 163, which concerned a dispute based on a commercial contract for allowances.

<sup>93</sup> Nn. 54–59 above.

<sup>94</sup> BIS, *Government Response*, n. 53 above.

<sup>95</sup> Art. 14(3), *Grundgesetz für die Bundesrepublik Deutschland* (German Federal Basic Law/Constitution); U. Deutsch, 'Expropriation Without Compensation – the European Court of Human Rights Sanctions German Legislation Expropriating the Heirs of "New Farmers"' (2005) 6(10) *German Law Journal*, pp. 1367–80, at 1370–1.

<sup>96</sup> German Federal Basic Law/Constitution, *ibid.*, Art. 14(1); Deutsch, *ibid.*

<sup>97</sup> US Constitution, Amendment V, n. 79 above; *Pennsylvania Coal Co.*, n. 79 above.

denial of property status to US allowances. Regulatory interference with EU allowances, however, would not necessarily rely on this ground.

## 5. DEFINING EMISSIONS ENTITLEMENTS BY ANALOGY WITH COMPARABLE RIGHTS REGIMES

This article has made the case for a legal analytical approach to defining emissions entitlements, based on real examples of tensions in the EU ETS that could be addressed thereby and with reference to the treatment of allowances in the US Acid Rain Program. The present section builds on the assertion of the importance of legal definition and introduces a suggested method for determining the characteristics of emissions entitlements. Since these characteristics are not defined in the EU ETS legal framework, it is proposed that they can be deduced by contrasting and comparing them with the rights that subsist in other, sufficiently similar regimes, the contents of which have been extensively discussed in legal doctrine. These regimes are intellectual property rights, EU milk quotas and spectrum licences.<sup>98</sup> This comparative exercise will ultimately involve a detailed analysis of the parallels between the key characteristics of all four regimes under scrutiny.<sup>99</sup>

These regimes have been selected because milk quotas and spectrum licences entail the granting of private rights in otherwise public resources in a manner similar to emissions allowances. Moreover, the EU milk quota system is a form of production regulation that restricts the supply of an item (milk) onto the market.<sup>100</sup> In this sense, emissions trading similarly aims to restrict the output of emissions (a regulatory goal). In addition, all three regimes have been legislatively created and grant rights in intangible instruments: expressions of ideas, production quotas and the radio spectrum, respectively. These regimes comprehensively cover the range of categorization options available when crafting a new type of entitlement (such as that in emissions allowances). While intellectual property rights are unequivocally recognized as property rights under UK law,<sup>101</sup> milk quotas entail some, but not all of the characteristics of property rights.<sup>102</sup> Spectrum rights, in turn, have been categorized as transferable licences that are administrative rather than contractual personal rights.<sup>103</sup>

It is argued that the characteristics of emissions entitlements can be defined by drawing out the similarities and contrasts between the three aforementioned rights

<sup>98</sup> This article refers to the UK legal system in respect of intellectual property rights and spectrum licences as an example of how the proposed analytical approach can be used to determine the characteristics of emissions entitlements.

<sup>99</sup> See Part 6 below.

<sup>100</sup> Regulation (EC) No. 1234/2007 establishing a Common Organisation of Agricultural Markets and on Specific Provisions for Certain Agricultural Products [2007] OJ L299/1 (Single CMO Regulation).

<sup>101</sup> Copyright, Designs and Patents Act 1988 (CDPA), s. 1(1); Patents Act 1977, s. 30(1); Trade Mark Act 1994, ss. 2(1), 22 and 27.

<sup>102</sup> M. Cardwell, 'Milk and Livestock Quotas as Property' (2000) 4(2) *Edinburgh Law Review*, pp. 168–90, in particular at 189–90.

<sup>103</sup> *Data Broadcasting International Ltd and Simpleactive Ltd v. Office of Communications (Ofcom)* [2010] EWHC 1243, in particular at [68], [88] and [91]–[94].



regimes and the EU ETS. This exercise is intended to assist in determining those characteristics of emissions entitlements which can best achieve the requisite trade-off between the primary goal of emissions trading (namely, emissions reductions) and the legitimate interests of market participants.

Emissions entitlements are arguably different from intellectual property rights. The aim of the latter regime is to reward creativity (copyright),<sup>104</sup> or investment in developing and branding high-quality products (trade marks),<sup>105</sup> or to encourage innovation (patents).<sup>106</sup> As such, the intellectual property regime is focused on the individual right holder, and any public interest in accessing the creation or invention is dealt with through derogations from the assumption that a monopoly has been granted to the right holder. Any derogation from the monopoly is permitted only where this is justifiable as a result of the public interest in gaining access to the creation or invention. Even in these publicly motivated circumstances, the limitations to intellectual property rights are carefully and narrowly drafted so as to minimize the negative effects of such interference on the right holder. For instance, copyright will not be infringed by anything done for the purpose of Parliamentary or judicial proceedings.<sup>107</sup> The key exceptions to the monopoly conferred by a patent are the notions of private non-commercial use, experimental use and prior use.<sup>108</sup>

By contrast, the EU ETS has as its stated principal goal the reduction of emissions to scientifically acceptable levels.<sup>109</sup> This goal of environmental protection is, by definition, a public policy goal. If it is accepted that it is indeed the primary and overriding goal of emissions trading, it follows that the fact that emissions allowances are held by individual entities is solely a means of achieving this regulatory end, not an end in itself. This would indicate that emissions entitlements should necessarily be more limited than intellectual property rights, so as to enable the public authority to interfere as it deems necessary for the attainment of the ultimate public policy goal. Emissions entitlements cannot, by definition, benefit from the extensive protection afforded to intellectual property rights. The regulator needs to retain some discretion over adjusting the amount of allowances in circulation at any given time in order to successfully pursue the emissions reducing goal of the EU ETS.

This arrangement resembles the milk quota and the spectrum licensing systems much more closely than it does intellectual property rights. A regime of private entitlements has been established in order to pursue an overarching regulatory goal. Viewed in these generic terms, the statement holds as much for emissions entitlements

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<sup>104</sup> *Walter v. Lane* [1900] AC 539, at 545; *Designers Guild v. Williams* [2001] Fleet Street Reports (FSR) 11, at para. 2.

<sup>105</sup> *Arsenal* [2003] European Trade Marks Reports (ETMR) 19, at paras. 46–7; *L'Oreal v. Bellure* [2007] ETMR 1, at para. 99.

<sup>106</sup> *Asahi Kasei Kogyo* [1991] Reports of Patent, Design and Trade Mark Cases (RPC) 485, at 523.

<sup>107</sup> CDPA 1988, s. 45.

<sup>108</sup> Patents Act 1977, ss. 60(5) and 64(1).

<sup>109</sup> Art. 1, EU ETS Directive, n. 1 above.

as it does for milk quota or spectrum licences. Emissions entitlements are transferable and have acquired intrinsic commercial value;<sup>110</sup> so have milk quotas<sup>111</sup> and, to a more limited extent, spectrum licences.<sup>112</sup> However, milk quotas are specifically described by the courts as forming part of the regulation of the EU single market. This, in turn, is said to justify tighter regulatory control over them as the specified public policy goal is paramount and any other goals or incidents of the milk quota system (such as burgeoning transferability and commercial value) are subordinate to it.<sup>113</sup> Spectrum licences are personal rights that are closely regulated in order to optimize the use of the radio spectrum, which is the primary (and, in fact, only) goal of the regime.<sup>114</sup>

The EU ETS is not technically part of the single market as emissions allowances are neither goods nor services for this purpose.<sup>115</sup> In fact, emissions trading goes beyond the single market as it is open to anyone who wishes to participate, whether an individual or a corporation, whether regulated by the EU ETS or not, and whether based in the EU or not.<sup>116</sup> Viewing emissions entitlements as conceptually equivalent to milk quotas, which are instruments of single market regulation, is consequently inaccurate. Emissions trading is also different from the spectrum licensing regime, which is substantially restricted in terms of the rights that are granted to licence holders.<sup>117</sup> The significantly wider reach of the EU ETS as compared to the milk quota and the spectrum licensing regimes is surely of relevance here. It demonstrates that the goals of emissions trading go beyond the officially stated goal of emissions reductions. This stands in contrast with the milk quota and the spectrum licensing regimes, which exist solely for regulatory purposes, hence the overbearing and extensive restrictions on the rights conferred under them.<sup>118</sup> On the other hand, the EU ETS has (perhaps unwittingly) created potential additional goals for itself. Two key additional (albeit intermediate) goals appear to be lowering the cost of reducing emissions, and creating a viable emissions market as the means to achieve reductions. The milk quota and the

<sup>110</sup> In 2010 the value of the market in EU ETS allowances was \$119.8 bn: see, e.g., World Bank, *State and Trends of the Carbon Market 2011* (World Bank, 2011), at p. 9.

<sup>111</sup> M. Cardwell, *Milk Quotas: European Community and United Kingdom Law* (Clarendon Press, 1996), at pp. 92–3.

<sup>112</sup> Decision 243/2012/EU establishing a Multiannual Radio Spectrum Policy Programme [2012] OJ L81/7, Recital 14; Arts. 3(f) and 4(2): Member States must work to allow spectrum trading in their respective jurisdictions. Spectrum management falls within the responsibility of Member States, and must be carried out in line with EU legislation; European Commission, Information Society, ‘Managing and Monitoring the Radio Spectrum in the EU’, available at: [http://ec.europa.eu/information\\_society/policy/ecommm/radio\\_spectrum/eu\\_policy/manage/index\\_en.htm](http://ec.europa.eu/information_society/policy/ecommm/radio_spectrum/eu_policy/manage/index_en.htm). In the UK, e.g., spectrum licences are tradable if so designated by the Office of Communications (OFCOM): Wireless Telegraphy Act 2006, s. 30.

<sup>113</sup> Irish Supreme Court, *Maher v. Minister for Agriculture, Food and Rural Development* [2001] IESC 32, at paras. 237 and 239.

<sup>114</sup> The UK spectrum rights regime is set out principally in the Wireless Telegraphy Act 2006, s. 125(1) and Sch. 9.

<sup>115</sup> E.g., European Commission, ‘The EU Single Market’, available at: [http://ec.europa.eu/internal\\_market/index\\_en.htm](http://ec.europa.eu/internal_market/index_en.htm).

<sup>116</sup> Arts. 12(1) and 19(2), EU ETS Directive, n. 1 above.

<sup>117</sup> Information regarding licence details is set out in the Wireless Telegraphy Act Register: Wireless Telegraphy Act 2006, s. 31.

<sup>118</sup> E.g. Member States may retain part of a quota which has been transferred and add it to their national quota reserve: Regulation (EC) No. 1234/2007, n. 100 above, Art. 76.

spectrum licensing regimes do not envisage pursuing similar goals. The additional goals of the EU ETS would militate towards stronger entitlements being vested in the owners of emissions allowances, in order to incentivize them to reduce emissions, create innovative green technologies (for regulated entities) and trade allowances in the market (for both regulated and non-regulated entities).<sup>119</sup>

Emissions entitlements differ from spectrum licences in an additional significant way. Spectrum licences are personal rights of a particular type, according to UK case law.<sup>120</sup> They are not private contractual rights, so as to prevent their holders from claiming damages for breach of contract from the regulator. Rather, they are administrative permissions to carry out an activity that would be illegal in the absence of such permission. This is a right which is personal as between the licence holder and the regulator.<sup>121</sup> Emissions entitlements could also be viewed as regulatory permissions to emit up to a certain amount,<sup>122</sup> without which emitting would be illegal, and the regulated entity would be fined.<sup>123</sup> This, however, only accounts for part of their purpose. This is because there are some market participants (namely entities not regulated by the EU ETS) which cannot use their allowances to emit carbon dioxide (CO<sub>2</sub>), but can only trade them. In cases where they are held by non-regulated entities, emissions allowances do not embody administrative permissions to do that which would otherwise be illegal. They resemble traditional commodities or assets, at least from the point of view of the entities trading them, which are not doing so for the purpose of complying with the EU ETS but rather for investment or speculative purposes. The existence of a private market which exists independently of the environmental purpose of the EU ETS renders it difficult to conceptualize emissions entitlements as purely personal as between the regulator and the holders. Had emissions trading been restricted to compliance trading, this conclusion would have been easier to reach. Interestingly, allowances under the US Acid Rain Program have been designated as limited authorizations to emit SO<sub>2</sub>, despite the openness of that market. This categorization is intended to confirm the possibility of regulatory intervention and the absence of corresponding compensation.<sup>124</sup> If the EU considers either or both of these two aspects to be a crucial part of the trading system as a tool of environmental policy, the US example could potentially be followed.

## 6. CONCLUSION

The dual public–private nature of the EU ETS has created a new interdependency between the regulatory purpose of emissions trading and its private law expression in the shape of the emissions market. The reliance of EU climate change policy on the

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<sup>119</sup> See Part 2 above.

<sup>120</sup> *Data Broadcasting*, n. 103 above.

<sup>121</sup> *Ibid.*

<sup>122</sup> A. Bell & G. Parchomovsky, 'A Theory of Property' (2005) 90 *Cornell Law Review*, pp. 531–615, at 581–2.

<sup>123</sup> Art. 16, EU ETS Directive, n. 1 above.

<sup>124</sup> *Cole*, n. 43 above.

success of a private law construct offers a series of novel challenges, a key one of which is the pressing need to define emissions entitlements.

This article has justified the importance of defining emissions entitlements by revealing a significant link between the public policy goals of the EU ETS and the characteristics of the entitlements that can be granted to market participants. The practical examples of loopholes and tensions experienced in the regulatory framework have occurred as a result of, or have been aggravated by, the absence of a clear definition of emissions entitlements. The practical failings of the EU ETS demonstrate a considerable need to articulate a principles-based theoretical framework to assist in identifying the characteristics of emissions entitlements and, subsequently, crafting a set of characteristics which best fits with the goals of emissions trading and the market-based means chosen to pursue them. The article has argued that, in deducing this set of contents, there is much to learn by reference to a similar regulatory trading regime (the US Acid Rain Program) and comparable rights regimes, notably intellectual property rights, milk quotas and spectrum licences. In doing so, it preliminarily maps out important points of overlap and divergence between the various rights regimes, and calls for further legal analysis of the parallels between the key characteristics of the rights regimes under scrutiny in order to support the task of effectively defining emissions entitlements.

The consequences of defining emissions entitlements have potential ramifications in a wide range of areas. A non-exhaustive list includes the tax and accounting treatment of emissions allowances,<sup>125</sup> criminal law (for instance, theft of emissions allowances),<sup>126</sup> the treatment of emissions allowances in insolvency,<sup>127</sup> commercial contracts,<sup>128</sup> environmental regulation,<sup>129</sup> financial markets regulation,<sup>130</sup> competition law (especially the issue of state aid in the context of free allocation of emissions allowances within the EU ETS),<sup>131</sup> and international trade agreements (for instance, whether they cover emissions trading).<sup>132</sup> One particular area stands out as a promising avenue for further research, in view of the fact that emissions trading has created a new private market in valuable instruments: the commercial contracts which transact emissions allowances. The treatment of emissions allowances in commercial contracts raises important questions as

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<sup>125</sup> M. Mace, 'The Legal Nature of Emission Reductions and EU Allowances: Issues Addressed in an International Workshop' (2005) 2(2) *Journal for European Environmental and Planning Law*, pp. 123–34, at 129–34; A. Cook, 'Accounting for Emissions: From Costless Activity to Market Operations', in Freestone & Streck, n. 9 above, pp. 59–76.

<sup>126</sup> FMLC, n. 26 above, pp. 5 and 8.

<sup>127</sup> Ibid.

<sup>128</sup> S. Drummond, 'Trading Instruments and Risk Management', in C. de Jong & K. Walet (eds.), *A Guide to Emissions Trading: Risk Management and Business Implications* (Risk Books, 2004), pp. 157–77; Mace, n. 125 above, at pp. 124–5.

<sup>129</sup> Cole, n. 43 above.

<sup>130</sup> Mace, n. 125 above, at pp. 126–7.

<sup>131</sup> Ibid., at pp. 127–8.

<sup>132</sup> Ibid., at pp. 128–9; C. Voigt, 'WTO Law and International Emissions Trading: Is There Potential for Conflict?' (2008) 2(1) *Carbon and Climate Law Review*, pp. 54–66. Cf. L. Rubini and I. Jegou, 'Who'll Stop the Rain? Allocating Emissions Allowances for Free: Environmental Policy, Economics, and WTO Subsidy Law' (2012) 1(2) *Transnational Environmental Law*, pp. 325–54.

regards determining the identity of the owners of allowances, how allowances can be transferred between parties and the nature of the right being transferred – in particular, how safe this right is against public intervention. It would therefore be useful to explore the impact of the dual public–private nature of the EU ETS on the ways in which market participants can protect their economic interests against the risks inherent in emissions trading. It may be that adequate contractual protection against such risks could potentially help to maintain the functionality of the emissions market and, in turn, assist with achieving the environmental goals of the EU ETS.