

RE-EVALUATING THE ORIGINS OF THE EUROPEAN UNION'S EMISSIONS TRADING SCHEME: THE EUROPEANISATION OF EMISSIONS TRADING

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ABSTRACT

The adoption of carbon market trading in the European Union (EU) was far from assured. Prior to the Kyoto Protocol, the EU had been critical of market trading and had expressed grave reservations regarding its potential contribution to climate governance. Given this historical backdrop, the EU's conversion to market trading and subsequent vocal championing of the merits of this regulatory approach, is particularly intriguing. Whilst emissions trading gradually garnered support within the EU, institutionally the Union remained trapped by the normative objections, which it had initially articulated against the idea. Such norm entrapment – the inability to pursue a preferred policy that violates a norm because of prior rhetorical affirmation of the norm – presented a particular dilemma for the EU.

Paradoxically, the contribution of individual norm entrepreneurs, located within the Commission, in reframing emissions trading as an effective and efficient instrument for climate governance in the EU proved considerable to unlocking this entrapment dilemma. As a result, a concept, which the EU had previously delegitimised as evasive of domestic responsibilities, was instead reconstructed as a legitimate strategy to salvage the Kyoto Protocol. As market trading internationalises, understanding the drivers and processes by which the EU ETS came to occupy the cornerstone of EU climate policy may offer valuable insights to policy-makers and stakeholders endeavouring to promote global emissions trading initiatives.

I. INTRODUCTION

The adoption of carbon market trading in the EU was far from assured. Indeed, scholars have chronicled how the rise of emissions trading as the EU's flagship climate policy was a somewhat unexpected development.¹ Part I of this Article provides an introductory overview of the EU's conversion to economic incentivisation and gradual crystallisation of this policy change in the form of the EU ETS. Part II reconsiders the theoretical development of market trading and explores the incremental transition from theory to practice. Part III deconstructs the process by which the EU implemented the EU ETS and re-examines the crucial role which norm entrapment played in constraining an earlier acceptance of market trading.

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¹ See Jon Birger Skjærseth and Jørgen Wettestad, *EU Emissions Trading: Initiation, Decision-Making and Implementation* (Ashgate 2008) for an analysis of the EU's shift from emissions trading laggard to leader. The contributions of Lefevere and Delebeke – key Commission policy-makers in the development of the EU ETS – provide valuable insights into the EU's conversion to market trading. See Jürgen Lefevere, 'The EU Greenhouse Gas Emission Allowance Trading Scheme' in Farhana Yamin (ed), *Climate Change and Carbon Markets: A Handbook of Emission Reduction Mechanisms* (Earthscan 2005) 75 and Jos Delbeke, 'The Emissions Trading Scheme (ETS): The Cornerstone of the EU's Implementation of the Kyoto Protocol' in Jos Delbeke and others (eds), *EU Energy Law, Volume IV: Environmental Law: The Greenhouse Gas Emissions Trading Scheme* (Claeys and Casteels 2006) 1

Unsurprisingly, given the EU's early vocal opposition to economic incentivisation approaches, only a particularly discrete combination of factors facilitated an EU conversion to market trading. This myriad of factors are considered in greater detail, before Part IV assesses the key drivers which facilitated this conversion and suggests that the EU's experience offers salient lessons for third countries considering the adoption of market trading. This is particularly so given the EU's deeply embedded normative objections to emissions trading and prior inexperience in deploying market instruments in an environmental context.

Prior to negotiation of the Kyoto Protocol, the EU had been hostile to market trading and its potential contribution to climate governance. During the Kyoto Protocol negotiations, the EU's position was based on three key principles: a commitment to mandatory caps on emissions by developed countries; an undifferentiated target of emission reductions of 15%; and what Convery has described as "antipathy to emissions trading as a mechanism for achieving these targets".² There was a concern – also prominently articulated in the academic literature – that emissions trading could be construed as a "right to pollute" or as "trading in indulgences", characterisations which might ultimately undermine the instrument's legitimacy and effectiveness.³ Many EU governments were also sceptical that market trading could be achieved within a timely window⁴ and failed to share the United States' singular confidence in market-based solutions to the challenges of climate change.⁵ Some, too, questioned whether American support for the proposal may have been less than altruistic.⁶ Unsurprisingly, the explicit endorsement by the Kyoto Protocol of emissions trading⁷ was affirmed in the United States as a "major victory for us".⁸

Given this historical backdrop, the EU's conversion to market trading, and subsequent vocal championing of the merits of this regulatory approach, is

² Frank Convery, 'Origins and Development of the EU ETS' (2009) 43 *Environmental and Resource Economics* 391, 393

³ For example, *see* Hermann Ott and Wolfgang Sachs, 'Ethical Aspects of Emissions Trading' (2000) Wuppertal Institute for Climate, Environment and Energy Paper 110/2000; Robert Goodin, 'Selling Environmental Indulgences' (1994) 47 *Kyklos* 573; and, Bruno Frey, "Motivation as a Limit to Pricing" (1993) 14 *Journal of Economic Psychology* 635.

For more recent ethical analyses of the EU ETS, *see* Gerd Winter, "The Climate is No Commodity: Taking Stock of the Emissions Trading System" (2010) 22(1) *Journal of Environmental Law* 1; Clive Splash, "The Brave New World of Carbon Trading" (2010) 15(2) *New Political Economy* 169; Donald Brown, 'Ethical Issues Raised by Carbon Trading (*Pennsylvania State University: Rock Ethics Institute – Climate Ethics*, 15 June 2010) < [http:// sites.psu.edu/rockblogs/2010/06/15/ethical-issues-raised-by-carbon-trading/](http://sites.psu.edu/rockblogs/2010/06/15/ethical-issues-raised-by-carbon-trading/) > accessed 17 September 2013; and, Ian Bailey and Sam Maresh, "Scales and Networks of Neoliberal Climate Governance: The Regulatory and Territorial Logics of European Union Emissions Trading" (2009) 34(4) *Transactions of the Institute of British Geographers* 445.

⁴ Marcel Braun and Tilman Santarius, 'Climate Politics in the Multi-Level Governance System: Emissions Trading and Institutional Changes in Environmental Policy-Making' (2008) Wuppertal Institute for Climate, Environment and Energy Paper 172/2008, 16

⁵ Karen Campbell, 'From Rio to Kyoto: The Use of Voluntary Agreements to Implement the Climate Change Convention' (1998) 7(2) *Review of European Community and International Environmental Law* 159, 162

⁶ Grubb, Vrolijk, and Brack have noted that some European governments questioned whether the United States had introduced emissions trading as a ploy to delay negotiations.

See Michael Grubb, Christiaan Vrolijk, and Duncan Brack, *The Kyoto Protocol: A Guide and Assessment* (Royal Institute of International Affairs 1999) 92

⁷ Article 17, Kyoto Protocol

⁸ Stuart Eizenstat, 'Implications of Kyoto Protocol on Climate Change: Statement before the Senate Foreign Relations Committee' (Washington D.C., 11 February 1998) <<http://www.gpo.gov/fdsys/pkg/CHRG-105shrg46812/pdf/CHRG-105shrg46812.pdf> > accessed 16 September 2013

particularly intriguing. It is evident too that by so doing the EU has not only retreated from its advocacy of more orthodox command-and-control measures in climate law, but it has also embraced the centrality of an economic incentivisation approach to addressing climate change.⁹ It is also particularly noteworthy that from the earliest European expressions of interest in emissions trading, a vision of a global trading architecture was consistently present.¹⁰ The EU's current vision of achieving an OECD-wide carbon market by 2015 is the most recent restatement of what was a foundational objective of the EU ETS.¹¹ For example, the Commission's Green Paper in early 2000, initiating discussion of the advantages of emissions trading in the EU, identified the importance of gaining experience in the implementation of such an instrument *before* international emissions trading commenced.¹² Prior to commencement of the first phase Jos Delbeke of the Commission's Directorate General for the Environment candidly acknowledged that "for the months and years to come, the EU will be on the steep end of the learning curve as regards emissions trading ...[and] that 'learning by doing' is an important in-built feature of the Emissions Trading Directive". Understanding the processes by which the EU ETS came to occupy the cornerstone of EU climate policy is therefore of significance to the wider prospect of internationalising emissions trading.

As the EU progresses towards the third phase of its ETS, with development of an internationally integrated architecture of emissions trading integral to the EU's vision of global climate governance, it is helpful to recall the origins of market trading and the implementation of the concept in the EU. This paper endeavours to unpack the concept and provide an understanding of the EU's adoption and gradual positioning of this instrument at the cornerstone of its climate governance regime.

II. THE RISE OF MARKET TRADING

(A) Overview

Market trading is not only intriguing in the EU climate context merely because of the radical *volte-face* it represented in EU climate policy: it has also become a defining characteristic of climate law more generally.¹³ However, this migration of emissions

⁹ De Cendra, 'Can Emissions Trading Schemes be Coupled with Border Tax Adjustments? An Analysis vis-à-vis WTO Law' (2006) 15(2) RECIEL 131.

This is all the more striking given that, as Skjærseth explains, "The European Commission [initially] had no experience of emissions trading and scant awareness of what an EU ETS could or should look like".

¹⁰ As Convery puts it: "the US was likely to embrace emissions trading as a key policy instrument ... and compatibility of approach could simultaneously be a useful stimulus to US action and facilitate intercontinental trading". Frank Convery, 'Origins and Development of the EU ETS' (2009) 43 *Environmental and Resource Economics* 391, 399

¹¹ Commission, 'Towards a Comprehensive Climate Change Agreement in Copenhagen' (Communication) COM (2009) 676, 11

As Türk, Mehling, Flachslund, and Sterk have commented that: "Given the need to harmonize critical design features, full bilateral links between OECD company-level cap-and-trade schemes prior to 2015 appear rather unlikely."

See Andreas Türk and others, 'Linking Carbon Markets: Concepts, Case Studies and Pathways' (2009) 9 *Climate Policy* 341, 350

¹² Commission, 'Green Paper on greenhouse gas emissions trading within the European Union' (Communication) COM (2000) 87 final

¹³ For example, see generally, Benjamin J Richardson, 'Climate Law and Economic Policy Instruments: A New Field of Environmental Law' (2004) 1 *Environmental Liability* 1; and Marjan Peeters, 'Inspection and Market-Based Regulation through Emissions Trading: The Striking Reliance on Self-Monitoring, Self-Reporting and Verification' (2009) 2(1) *Utrecht Law Review* 177

trading from academic scholarship to practical implementation has been a gradual process characterised by intermittent progress. Whilst the influence of market trading in environmental law today has been described as a “virtual orthodoxy”, for a considerable period the theoretical foundations of today’s current carbon markets remained an academic debate with minimal application in practice.¹⁴ For example, Dryzek still felt justified, writing in 2005, in observing that: “the pace of diffusion of economic rationalism into environmental policy practice has been glacial”.¹⁵ Even though since the 1970s (and before),¹⁶ the regulating power of economic incentivisation approaches and market trading in particular has been the subject of much scientific literature, perhaps most prominently in the field of environmental economics, this dialogue had only recently filtered through to policy practice.¹⁷

In view of this historical development, the frequent description of economic policy instruments as “new” is somewhat misplaced, as there is little, which is novel about the discourse. It is also noteworthy that the practical adoption of such instruments, in many instances, has resulted from a much slower and more incremental evolution of national environmental policies, rather than a revolution in environmental policy formation.¹⁸ Traditionally it has more often been the case that when economic incentivisation approaches have been introduced, there is no wholesale radical departure from the existing regulatory landscape.¹⁹ In a very real sense, this process resembles von Homeyer’s “institutional layering” thesis of EU environmental policy evolution, where governance is characterised “not only by change, but also by considerable continuity”.²⁰

¹⁴ Jody Freeman and Charles Kolstad, ‘Prescriptive Environmental Regulations versus Market-Based Incentives’ in Jody Freeman and Charles Kolstad (eds), *Moving to Markets in Environmental Regulation: Lessons After Twenty Years of Experience* (Oxford University Press 2006) 3, 4

See also Neil Gunningham and Peter Grabosky, *Smart Regulation: Designing Environmental Policy* (Oxford University Press 1998) 69 who note that ‘regulators, environmentalists and industry alike tended to be more comfortable with the familiar terrain of traditional regulation’.

¹⁵ John Dryzek, *The Politics of the Earth: Environmental Discourses* (2nd edn, Oxford University Press 2005) 137

¹⁶ As early as 1920, Pigou advocated that corrective taxes could function to discourage activities generating externalities, long in advance of Dales’ seminal text suggesting that transferable property rights could promote environmental protection at a lower cost than traditional standards-based regulation.

See Arthur Pigou, *The Economics of Welfare* (Macmillan Press 1920) and John Dales, *Pollution, Property and Prices: An Essay in Policy-Making and Economics* (Toronto University Press 1968).

¹⁷ Hans Bressers and Dave Huitema, ‘Economic Instruments for Environmental Protection: Can We Trust the “Magic Carpet”’ (1999) 20(2) *International Political Science Review* 175, 176

¹⁸ Andrew Jordan and others, “‘New’ Instruments of Environmental Governance: Patterns and Pathways of Change’ (2003) 12(1) *Environmental Politics* 1, 5

More broadly, Lindblom suggests true innovation is the exception, rather than the norm in policy-making and most political change is highly incremental in nature, representing a marginal alteration of existing policy goals and instruments.

See Charles Lindblom, *The Intelligence of Democracy: Decision-Making through Mutual Adjustment* (Free Press 1965) 145 -149

¹⁹ As Hahn has observed most economic incentivisation approaches are not “implemented from scratch [but] are grafted onto regulatory systems in which permits and standards play a dominant role”.

See Robert Hahn, ‘Economic Prescriptions for Environmental Problems: How the Patient Followed the Doctor’s Orders’ (1989) 3(2) *Journal of Economic Perspectives* 95, 107

²⁰ Ingmar von Homeyer, ‘The Evolution of EU Environmental Governance’ in Joanne Scott (ed), *Environmental Protection: European Law and Governance* (Oxford University Press 2009) 1, 24

Whilst a detailed evaluation of the causes of continuity is beyond the scope of this paper, von Homeyer has emphasised the influence of path-dependency, a factor which is resonant of Dryzek’s emphasis of “the resistance of established routines”.

(B) Integrating Theory and Practice

Until the 1960s economic instruments were tools, which “only existed on blackboards and in academic journals, as products of the fertile imaginations of academics”.²¹ However, the economic theory underlying such instruments was gaining increasing prominence. Ronald Coase’s seminal work, “The Problem of Social Cost”, advanced highly influential propositions about the potential of liability rules for the allocation of resources and the distribution of benefits, perspectives which were further validated by his receiving the Nobel Prize for Economics in 1991.²² Building on Coase’s conceptualisation, Dales and others have argued that prevailing private property structures fail to capture externalities, which could more appropriately be internalised by market trading.²³ Gordon and Hardin framed this situation as the “tragedy of the commons” – the ideal-type unmanaged pasture where shepherds have every reason to continue to over-populate the common pasture with livestock advancing their own self-interest and insufficient incentive to consider the collective interest.²⁴ More recently, Stern has similarly refashioned the nature of the problem of climate change as “market failure on the greatest scale the world has seen”.²⁵

The intrinsic nature of this approach to an environmental problem also serves to indicate the nature of the prescribed solution.²⁶ The economist’s objective when seeking to correct such market failures is to integrate or create mechanisms, which remedy that failure. Indeed, as Stern has put it, the “appropriate response to a substantial market failure is not to abandon markets but to act directly to fix it, through taxes, other forms of price correction, or regulation”.²⁷ Theoretically, by changing the incentive structure which actors face, the power of the market can be harnessed and directed toward the achievement of environmental goals promoting consonance between private choice and social interest.²⁸ More specifically, in the

See also John Dryzek, *The Politics of the Earth: Environmental Discourses* (2nd edn, Oxford University Press 2005) 138

However, Golub has argued that environmental policy around the globe has been undergoing a “fundamental transition” with an enhanced emphasis on a “new arsenal of flexible and efficient policy tools”.

See Jonathan Golub, *New Instruments for Environmental Policy in the EU* (Routledge 1998) xiii

²¹ Robert Hahn, ‘Economic Prescriptions for Environmental Problems: How the Patient Followed the Doctor’s Orders’ (1989) 3(2) *Journal of Economic Perspectives* 95, 95

²² Coase, ‘The Problem of Social Cost’ (1960) 3 *Journal of Law and Economics* 1

²³ John Dales, *Pollution, Property and Prices* (Toronto University Press 1968) and Allen Kneese and Blair Bower, *Managing Water Quality: Economics, Technology, Institutions* (John Hopkins University Press 1968)

²⁴ H. Scott Gordon, ‘The Economic Theory of a Common Property Resource: The Fishery’ (1954) 62 *Journal of Political Economy* 124 and Garrett Hardin, ‘The Tragedy of the Commons’ (1968) 162 *Science* 1243

Monbiot has argued that the narrative of the commons is fundamentally flawed. “In reality, traditional commons are closely regulated by the people who live there. In a true commons, everyone watches everyone else, for they know that anyone over-exploiting a resource is exploiting them”.

See George Monbiot, ‘The Tragedy of Enclosure’ (1994) 270(1) *Scientific American* 159

²⁵ “[H]uman-induced climate change is an externality, one that is not ‘corrected’ through any institution or market, unless policy intervenes”.

See Nicholas Stern, *The Economics of Climate Change: The Stern Review* (Cambridge University Press 2007) 24

²⁶ Timothy Swanson, ‘Economic Instruments and Environmental Regulation: A Critical Introduction’ (1995) 4(4) *Review of European Community & International Environmental Law* 287, 288

²⁷ Nicholas Stern, *A Blueprint for a Safer Planet: How We Can Save the World and Create Prosperity* (Vintage 2010) 11

²⁸ T.H. Tietenberg, ‘Economic Instruments for Environmental Regulation’ (1990) 6(1) *Oxford Review of Economic Policy* 17

context of emissions, an optimal allocation of emissions should develop through market trading. Entities willing to pay the most for allowances are the ones who face the highest costs of reducing emissions. Consistently, emissions cuts will be achieved by entities and sectors most adept at delivering reductions, thereby promoting economically efficient outcomes. Inevitably, some entities and installations may well be better equipped or more favourably positioned structurally to minimise their emissions.²⁹

However, it is important to emphasise that most advocates of economic incentivisation do not favour an entirely unregulated free market philosophy in this arena.³⁰ Whilst free market environmentalism envisions the allocation of property-rights for natural resources to private interests with the market determining the value of environmental goods, the more commonly advanced philosophy underlying economic instruments, aptly articulated by Rehbinder, is that “the market should be used for economic efficiency purposes in a merely instrumental way in order to achieve environmental policy goals that continue to be set by the state”.³¹ Emissions trading is not, as Zapfel and Vainio have emphasised, primarily about trading but rather deploying a mechanism that allows or increases the likelihood of realising a specified environmental objective.³² In this sense, Golub has appropriately characterised this re-imagining of regulation as “re-regulation rather than deregulation”,³³ despite long-standing concerns that movement towards economic incentivisation approaches may contribute to or cause light-touch regulation.³⁴

It is evident too that this process of re-regulation, in the context of climate law, entails the integration of complex multi-level governance processes across differing levels of social activity involving state and non-state actors.³⁵ As such, this approach does not represent an abandonment of any state role in regulation. Rather, it suggests a re-scaling of the state whereby the state *decides* to participate in regulation at selective stages and consciously *chooses* to act in concert with non-state actors. The narrative of state decline struggles to fully capture such fluid and complex processes of governance and the different, though potent, mechanisms of influence, which the state continues to retain.

²⁹ Some sectors emissions allocations during the pilot phase of the EU ETS were also restrained more than others. For example in the UK, power plants received on average, 72% of reference emissions, whilst cement manufacturers received 96.5% and chemical plants received 88% of reference emissions.

See James Allen and Anthony White, ‘Carbon Trading’ (2005) 30(5) *Electric Perspectives* 50, 54

³⁰ Such as has been advocated by Anderson and Leal.

See Terry Anderson and Donald Leal, ‘Free Market Versus Political Environmentalism’ (1992) *Harvard Journal of Law and Public Policy* 297

³¹ Eckard Rehbinder, ‘Ecological Contracts: Agreements Between Polluters and Local Communities’ in Gunther Teubner, Lindsay Farmer, and Declan Murphy (eds), *Environmental Law and Ecological Responsibility: The Concept and Practice of Ecological Self-Organization* (John Wiley & Sons 1994) 147

³² Peter Zapfel and Matti Vainio, ‘Pathways to European Greenhouse Gas Emissions Trading: History and Misconceptions’ (2002) *Fondazione Eni Enrico Mattei Working Paper Series* 85/2002, 21

³³ Jonathan Golub, ‘Introduction and Overview’ in Jonathan Golub, *New Instruments for Environmental Policy in the EU* (Routledge 1998) 8

³⁴ See, for example, Howard Latin, ‘Ideal Versus Real Regulatory Efficiency: Implementation of Uniform Standards and “Fine-Tuning” Regulatory Reforms’ (1983) 54 *Stanford Law Review* 1267 and more recently, Robert Baldwin ‘Regulation Lite: The Rise of Emissions Trading’ (2008) 2 *Regulation & Governance* 193

³⁵ Gerard H. Kelly, “Surveying Emissions Trading Through a Multi-Level Governance Lens” in Vasilka Sancin (ed), *International Environmental Law: Contemporary Concerns and Challenges* (GV Publishing 2012) 329

(C) The Advent of Market Trading in the United States

Deatherage has recently suggested that market trading retains a distinctive “made in America” imprint, observing that “[c]ap and trade concepts were invented in the United States”.³⁶ Although this may appear somewhat surprising in the post-Kyoto landscape, given the United States’ hostility to ratifying the Protocol and the flexibility mechanisms mandated under it, it is undoubtedly true that the application of market trading concepts in the United States and the academic commentary and analysis which accompanied this experience was highly influential in the development of carbon trading in the EU.³⁷ By the mid-1990s, market trading had “com[e] of age in the policy arena”,³⁸ particularly with the advent of the United States’ sulphur dioxide trading scheme in 1995. This “Grand Policy Experiment” provided an early template for the EU ETS and it is still widely regarded as the genesis of the many different trading systems operating today.³⁹ As Convery has explained:

This experience [of emissions trading] and the associate analyses provided European economists with insights to apply to the European situation, and provided officials in both Member States and the Commission with a body of literature and people to interrogate and to learn from. Information was generously provided by both the research and analytical community and the practitioners in the US Environmental Protection Agency and elsewhere.⁴⁰

The US emissions trading programme, authorised under the Clean Air Act 1990, was extolled in many quarters as a success with claims that abatement costs were considerably less than would otherwise have been the case under traditional regulatory approaches.⁴¹ Early forecasts had indicated that the programme would cost \$6 billion annually once it was fully implemented. However, actual estimated costs were considerably lower, in the region of \$1.1 to \$1.8 billion, less than 30% of

³⁶ Scott Deatherage, *Carbon Trading Law and Practice* (Oxford University Press 2011) 20

³⁷ Notably, the impact of Canadian scholar John Dales’ seminal work “Pollution, Property and Prices” can hardly be overstated when considering the conceptual evolution of market trading.

³⁸ Robert Hahn and Robert Stavins, ‘Economic Incentives for Environmental Protection: Integrating Theory and Practice’ (1992) 82(2) *American Economic Review* 464

³⁹ The term was coined by Stavins in his evaluation of the success of the US sulphur dioxide trading scheme.

³⁹ See Robert Stavins, ‘What Can We Learn From the Grand Policy Experiment? Lessons From SO₂ Allowance Trading’ (1998) 12(3) *Journal of Economic Perspectives* 69

⁴⁰ Frank Convery, ‘Origins and Development of the EU ETS’ (2009) 43 *Environmental and Resource Economics* 391, 397

⁴¹ For example, the Environmental Defense Fund (EDF), a US-based environmental NGO, praised emissions trading, observing it achieved “superior environmental protection by giving businesses both flexibility and a direct financial incentive to find faster, cheaper, and more innovative ways to reduce pollution”.

See EDF, ‘The Cap and Trade Success Story’ UNICEF (2011) <<http://env.chass.utoronto.ca/env200y/ESSAY08/EnvironmentalDefense.pdf>> accessed 16 September 2013

The American experience with sulphur dioxide trading, however, has also been criticised for lacking environmental ambition. Smith, for example, has observed that “Germany cut power plant sulphur emissions by 90% from the first proposal in 1982 to the completion of its programme in 1998, relying on firm regulation and legislation and no trading scheme of any sort.”

See Kevin Smith, ‘Stern Words While in the EU They’re Trading Hot Air’ (2006) 10(11) *Parliamentary Brief* 25, 26

original predictions.⁴² The trading programme achieved its core environmental objective and significantly reduced SO₂ emissions by 22% below mandated levels during the scheme's first phase.⁴³ Ellermann et al concluded that the core lesson of the experience was that large-scale tradable permits programs can work more or less as textbooks describe: market trading had completed its migration from theory to practice.⁴⁴

The success of sulphur dioxide trading in the United States provided further support for the argument that the traditional positioning of economic and environmental principles as diametrically opposed objectives was outdated and that it was possible to construct a regulatory framework which accommodated – indeed even advanced – both interests.⁴⁵ However, it would be disingenuous to overlook the significant volume of criticism, which continues to surround the perceived intrusion of economic principles into environmental value determinations, an intrusion which, it has often been argued, only serves to ultimately weaken the environmental integrity of governance arrangements.⁴⁶ Nor has the claimed success of economic incentivisation approaches been universally acknowledged. Golub makes a salient point, linked to von Homeyer's layering phenomenon discussed earlier, that economic incentivisation “instruments have almost invariably been applied in the EU as merely one tool within a package, supplementing pre-existing command-and-control regulation”.⁴⁷ In such circumstances it is difficult to isolate the perceived advantages and successes of economic incentivisation approaches from the influence of the surrounding governance landscape, much of which may remain traditional in character.⁴⁸ This should not be surprising, as a clear causal pattern is rarely as demonstrable in the social sciences as exact sciences. Instead, as Braithwaite and Drahos have observed, shedding light on why something happened may be possible by identification of a causal mechanism that led to an event, but why that mechanism rather than another was triggered is likely to remain under a veil.⁴⁹ For example, the innovation dividend of market trading, sometimes accepted as given, has remained

⁴² *ibid*

⁴³ *ibid*

⁴⁴ A. Denny Ellermann and others, *Markets for Clean Air: The U.S. Acid Rain Program* (Cambridge University Press 2000) 315

⁴⁵ It should be noted that a growing school of thought suggests that the notion of an inevitable struggle between the environment and the economy is a misplaced premise and that “properly designed environmental standards can trigger innovation that may partially or more than fully offset the costs of complying with them” – the so-called “Porter hypothesis”.

See Michael Porter and Claas van der Linde, ‘Toward a New Conception of the Environment-Competitiveness Relationship’ (1995) 9(4) *Journal of Economic Perspectives* 97, 98

⁴⁶ Eckersley, for example, has expressed concern that economic incentivisation approaches are philosophically misguided.

See Robyn Eckersley, ‘Markets, the State, and the Environment: An Overview’ in Robyn Eckersley, *Markets, the State and the Environment: Towards Integration* (Macmillan 1995) 12

⁴⁷ Golub refers to the much publicised shift to unleaded petrol which is often attributed to the effects of taxation policies, noting that command and control requirements to equip cars with catalytic converters was also highly influential.

See Jonathan Golub, ‘Introduction and Overview’ in Jonathan Golub, *New Instruments for Environmental Policy in the EU* (Routledge 1998) 22

⁴⁸ *ibid*

⁴⁹ John Braithwaite and Peter Drahos, *Global Business Regulation* (Cambridge University Press 2011) 15
Importantly mechanisms, in this sense, are distinguished from general laws, as commonly applied in the exact sciences, which allow with certitude the formation of conclusions both in an explanatory and predictive sense.

the subject of considerable debate.⁵⁰ Specifically with respect to the US sulphur dioxide trading scheme, Taylor, Rubin, and Hounshell have commented that “the weight of evidence of the history of innovation in SO₂ control technology does not support the superiority of ... emissions trading as an inducement for environmental technological innovation, as compared with the effects of traditional environmental policy approaches”.⁵¹ Distilling the causative influence of economic incentivisation approaches, from the broader traditional regulatory landscape within which they are often located, remains a challenging endeavour. As noted at the outset, the debate concerning the relative merits of economic incentivisation approaches continues with respect to the EU ETS. However, recognition of the validity of rival perspectives in this context, though reconsideration of such critical commentaries do not form the subject matter of this paper, is nonetheless important.⁵² These critiques remain of enduring critical value to alternative visions of governance arrangements, particularly frameworks less influenced by (or anchored to) economic incentivisation approaches. The case for market trading does not enjoy unanimous support and advocates of a vision of climate governance dominated by linked carbon markets are challenged to continue to justify their approach with increasing clarity in the quality of their arguments.

III. THE ORIGINS OF THE EU ETS

(A) EU Climate Leadership

As Voß has acknowledged the development of emissions trading has had “considerable influence in the transformation of environmental governance regimes throughout the world”.⁵³ It is, perhaps, in the EU that this influence has been most penetrating, impressive, and enduring. As we have seen, market trading has now become the “flagship measure” in the EU’s climate change policy toolkit.⁵⁴ Adoption of emissions trading in the EU also signalled a considerable paradigm shift in governance from a largely command-and-control topography to confidence in the centrality of the market to the climate governance landscape. The endurance of this instrument is aptly demonstrated by the EU’s continuing emphasis on the long term contribution of the EU ETS to climate policy. Despite international uncertainty regarding a post-Kyoto settlement, the EU has unilaterally committed itself to delivering 20% carbon cuts by 2020 irrespective of whether or not an international

⁵⁰ Convery would appear to acknowledge dynamic efficiency as flowing from trading schemes, though he acknowledges this has “received less attention”.

See Frank Convery, ‘Origins and Development of the EU ETS’ (2009) 43 *Environmental and Resource Economics* 391, 397

⁵¹ Margaret Taylor, Edward Rubin, and David Hounshell, ‘Regulation as the Mother of Innovation: The Case of SO₂ Control’ (2005) 27(2) *Law & Policy* 348, 370

⁵² For example, Heynen and others have been particularly trenchant in their criticism of market trading and economic incentivisation dismissing the ‘failed logic of neoliberalism and its ravenous craving for markets, commodities, and sites of accumulation across the planet’.

See Nik Heynen and others, ‘Conclusion: Unnatural Consequences’ in Nik Heynen and others, *Neoliberal Environments: False Consequences and Unnatural Consequences* (Routledge 2007) 287, 290

⁵³ Jan-Peter Voß, ‘Innovation Processes in Governance: The Development of “Emissions Trading” as a New Policy Instrument’ (2007) 34(5) *Science and Public Policy* 329, 330

⁵⁴ Jos Delbeke, formerly of the Directorate-General (DG) for the Environment and currently the first Director General of DG Climate Action has frequently emphasised the centrality of the EU ETS in EU climate policy.

For example, *see* Jos Delbeke, ‘The Emissions Trading Scheme (ETS): The Cornerstone of the EU’s Implementation of the Kyoto Protocol’ (2006) 1(2) *European Review of Energy Markets* 1

agreement is concluded.⁵⁵ The achievement of this objective is largely dependent upon the success of the EU ETS. Moreover, the Commission has presented plans for a fourth trading phase from 2021 – 2028 during which auctioning will become the sole means of allocation.⁵⁶ From an EU perspective, it is clear that emissions trading is not a transient regulatory innovation: it is now a central pillar of the EU's climate governance philosophy.⁵⁷

By establishing the EU ETS the EU has also attempted to reinforce its climate governance leadership credentials, whilst remaining competitive in an unevenly carbon-regulated world. Damro and Luaces Méndez have correctly highlighted that the “thrust of EU climate change [policy] has reflected a desire to claim Union leadership, both externally and internally, in the policy field”.⁵⁸ For example, the EU's ambitious vision of implementing OECD-wide carbon trading by 2015 with further expansion to transitional economies represents not only a confident statement of the EU's faith in emissions trading as a core regulatory tool in climate governance, but also the EU's confidence in its directional leadership. It is also a not-too-subtle attempt to influence the design and rules of any emerging international trading system. The possibility that the EU ETS could eventually form the nucleus of a global trading architecture had long been recognised by the Commission and with nascent emissions trading schemes in Australasia and the United States, and the expansion of the EU ETS to include EFTA states, this objective remains firmly fixed as an EU policy goal.⁵⁹ Consistently, the importance of playing a formative role in the early development of the design features of emissions trading was also recognised. By the elaboration of its own dominant scheme, the EU could aspire to become the international standard-setter “in control of the most important international regulatory effort to limit greenhouse gases”.⁶⁰ Environment Commissioner, Ritt Bjerregaard, was explicit about the importance of such influence: “We have to get involved in emissions trading... we cannot let others dictate the rules”.⁶¹

The importance of this process of shaping and influencing the development of emissions trading has also been recognised as a significant motivating factor at the national level. Whilst Germany had initially been cool towards the possibility of

⁵⁵ Council of the EU, ‘Brussels European Council 8/9 March 2007’ (Presidency Conclusions) 7224/1/07 REV 1 [30]

⁵⁶ Commission, ‘Information provided on the functioning of the EU Emissions Trading System, the volumes of greenhouse gas emission allowances auctioned and freely allocated and the impact on the surplus of allowances in the period up to 2020’ (Commission Staff Working Document) COM (2012) 416 final, 4

⁵⁷ Frank Convery, ‘Origins and Development of the EU ETS’ (2009) 43 *Environmental and Resource Economics* 391, 393

⁵⁸ Chad Damro and Pilar Luaces Méndez, ‘Emissions Trading at Kyoto: From EU Resistance to Union Innovation’ (2003) 12(2) *Environmental Politics* 71, 79

⁵⁹ As Delbeke has put it: “The EU ETS can become a blueprint for a global system of emissions trading”.

See Jos Delbeke, ‘The Emissions Trading Scheme (ETS): The Cornerstone of the EU's Implementation of the Kyoto Protocol’ (2006) 1(2) *European Review of Energy Markets* 1, 13

⁶⁰ Christian Egenhofer and Thomas Legge, “After Marrakech: The Regionalisation of the Kyoto Protocol”, Centre for European Policy Studies (2001) <http://old.ceps.eu/Article.php?article_id=232> accessed 17 September 2013

⁶¹ Jon Birger Skjærseth and Jørgen Wettestad, *EU Emissions Trading: Initiation, Decision-Making and Implementation* (Ashgate 2008) 36

market trading,⁶² Zapfel and Vainio have emphasised that “[t]he possibility to be involved in the early stages and influence rule development was a major engine to power German interest in the new and coming instrument”.⁶³ Such a strategy may be interpreted as an effort to minimise the administrative adjustment costs expected to follow from the introduction of emissions trading, a driver, which has been highlighted elsewhere in European environmental regulation.⁶⁴ The Commission has also identified the significance of securing “first mover” advantage in the environmental sphere suggesting that “in an increasingly competitive world environmental performance can be a factor giving companies or their products a competitive edge”.⁶⁵ Recognition of the importance of influencing the development of the key characteristics of a carbon trading scheme also suggests that, as the EU seeks to export the design features of the EU ETS, third country partners may lack the same incentives to engage which, at least partially, motivated the EU’s initial conversion to emissions trading. However, securing “first mover advantage” by playing an early pioneering role in the implementation of emissions trading does not fully explain the remarkable change in the EU’s attitude towards the use of this instrument.

(B) Why the Change in Position Towards Emissions Trading?

In a very short space of time, emissions trading moved from being a non-considered policy option for the EU to become the cornerstone of EU climate policy.⁶⁶ The EU’s change in position has been described as moving from “follower to leader”⁶⁷ and – perhaps more accurately – from “sceptic to frontrunner”.⁶⁸ However, Ellermann and others suggest that it is not only in the EU that this conversion process has occurred. In the United States too “emissions trading has gone from being a pariah among policymakers to being a star”⁶⁹ and it may well be that there is something in Convery’s observation that “emissions trading was an idea whose time had come”.⁷⁰ However, in the context of the EU’s remarkable change, how has this process occurred and are there lessons in this evolution which may be of relevance as the EU looks to broaden the horizons of the EU ETS?

⁶² Indeed, Matthes and Schaufhausen have suggested that, during the EU ETS pilot phase, “[s]ignificant powers from politics and the Federal Administration [continued to] have a very negative stance toward the implementation of the EU ETS or still oppose it”.

See Felix Christian Matthes and Franzjosef Schaufhausen, ‘The EU ETS Allocation Process: Germany’ in A. Denny Ellermann, Barbara Buchner, and Carlo Carraro, *Allocation in the European Emissions Trading Scheme: Rights, Rents and Fairness* (Cambridge University Press 2007) 72, 73

⁶³ Peter Zapfel and Matti Vainio, ‘Pathways to European Greenhouse Gas Emissions Trading: History and Misconceptions’ (2002) Fondazione Eni Enrico Mattei Working Paper Series 85/2002, 10

⁶⁴ For example, Löfstedt has detailed German lobbying of the European Union to have the precautionary principle adopted in a manner consistent with its existing application in Germany.

See Ragmar Löfstedt, ‘The Swing of the Regulatory Pendulum in Europe: From Precautionary Principle to (Regulatory) Impact Analysis’ (2004) 28(3) *Journal of Risk and Uncertainty* 237, 245

⁶⁵ Commission, ‘Integrated Product Policy: Building on Environmental Life Cycle Thinking’ (Communication) COM (2003) 302 Final, 6

⁶⁶ Frank Convery, ‘Origins and Development of the EU ETS’ (2009) 43 *Environmental and Resource Economics* 391, 404

⁶⁷ European Environment Agency, ‘Market-based Instruments for Environment Policy in Europe’ (2005) EEA Technical Report 8/2005, 16

⁶⁸ Atle Christiansen and Jørgen Wettestad, ‘The EU as a Frontrunner on Greenhouse Gas Emissions Trading: How Did it Happen and Will the EU Succeed’ (2003) 3 *Climate Policy* 3, 4

⁶⁹ A. Denny Ellermann and others, *Markets for Clean Air: The U.S. Acid Rain Program* (Cambridge University Press 2000) 4

⁷⁰ Frank Convery, ‘Origins and Development of the EU ETS’ (2009) 43 *Environmental and Resource Economics* 391, 406

The Commission had originally unveiled the introduction of a carbon tax as the core component of its climate governance strategy. Damro and Luaces Méndez have noted that the perceived interrelatedness of economics and climate change contributed to the creation of a perspective where it was considered too difficult to steer climate governance by traditional command-and-control regulation alone.⁷¹ In this respect, the concept of a carbon tax represented a significant step towards the harnessing of market forces in the field of environmental governance, a not uncontroversial progression in itself.⁷² However, little progress was achieved in devising substantive measures to coordinate Member States' climate policies throughout the 1990s and the concept of a carbon tax floundered amidst national sovereignty and competitiveness concerns. Key Member States such as Spain and the UK were vociferously opposed to a carbon tax which, as a fiscal matter, required unanimity in the Council of Ministers to pass into legislation.⁷³ Expanding on the EU's competitiveness concerns, Huber has attributed the failure to introduce an EU-wide carbon tax to a "cost-free leadership" vision, where the Commission and Member States were reluctant to act without securing commitments from the US and Japan to introduce comparable energy and CO₂ taxes.⁷⁴ Instead, Member States forged ahead with diverse climate policies encompassing traditional regulation, energy and CO₂ taxes, and voluntary agreements. As it became clear that a harmonised EU tax was increasingly unlikely, the Commission encouraged Member States to establish national taxes on a product-by-product basis.⁷⁵

However, developments were also already in motion nudging the EU towards emissions trading. European industry was moving towards an acceptance of emissions trading – a process which was particularly evident when BP announced the launch of an internal emissions trading scheme in 1998 with Shell following suit shortly after. Commission insiders recognised such developments constituted "increasingly powerful drivers",⁷⁶ but the prospect of proliferating individual national trading schemes, whilst welcome laboratories of the concept of market trading in practice, also raised the risk of creating a patchwork of domestic schemes with potentially conflicting rules and market distortions. In 1999 the Danish Parliament approved a bill on CO₂ quotas for electricity production as part of legislative reform of the electricity sector. Whilst only eight companies participated in the trading scheme, it nonetheless covered more than 90% of emissions from power generation. In 2002 the UK Government endorsed and financially supported a pilot scheme developed by an association of business actors, the Emissions Trading Group. The advantages of "first mover" were again emphasised, with Voß suggesting that this

⁷¹ Chad Damro and Pilar Luaces Méndez, 'Emissions Trading at Kyoto: From EU Resistance to Union Innovation' (2003) 12(2) *Environmental Politics* 71, 80

⁷² EU agreements to limit CO₂ emissions from new vehicles sold in the EU were concluded with European, Japanese and Korean car manufacturers in 1998 and 1999.

⁷³ Jørgen Wettestad, 'The Making of the 2003 EU Emissions Trading Directive: An Ultra-Quick Process due to Entrepreneurial Efficiency' (2005) 5(1) *Global Environmental Politics* 1, 8

⁷⁴ Michael Huber, 'Leadership in European Climate Policy: Innovative Policy Making in Policy Networks' in Duncan Liefferink and Mikael Skou Andersen (eds), *The Innovation of EU Environmental Policy* (Scandinavian University Press 1998) 145, 150

⁷⁵ Commission, 'Communication from the Commission under the UN Framework Convention on Climate Change' (Communication) COM (1996) 217 final

⁷⁶ Peter Zapfel and Matti Vainio, 'Pathways to European Greenhouse Gas Emissions Trading: History and Misconceptions' (2002) *Fondazione Eni Enrico Mattei Working Paper Series* 85/2002, 9

experiential head start on global carbon markets was “a key argument in advertising the initiative to government and societal stakeholders”.⁷⁷

Emissions trading was also gaining momentum beyond its contribution to climate governance as a distinct and thriving service economy and was beginning to actively lobby for expansion of its market.⁷⁸ A commercial infrastructure rapidly developed encompassing consultancies, banks, brokers, exchanges, risk managers, and lawyers. The International Emissions Trading Association was established in 1999 to promote the worldwide development of emissions markets. Several commentators have highlighted the broad support for emissions trading which existed from a wide range of business and industry groups across the EU,⁷⁹ a perspective further underscored by the Commission’s own consultations with industry stakeholders.⁸⁰ This “conscious collective effort of the Commission to cooperate with stakeholders”⁸¹ also reveals a reality of climate governance framework which is invariably multi-level and multi-actor, a theme which has been the subject of considerable scholarly debate.⁸² Convergence of industry and government perspectives, although not universal, is also consistent with a fundamental hypothesis underpinning the attractiveness of market trading which Bakker describes as the “hope of a virtuous fusion of economic growth, efficiency, and environmental conservation”.⁸³ Indeed, Bailey and Maresh have argued that the creation of the EU ETS “was made possible by a swift convergence among supranational, state, and industry actors around the regulatory logic of EU emissions trading as a cost-effective means of achieving emissions targets agreed in the Kyoto Protocol”.⁸⁴ Of course, this same regulatory logic had been rigorously advanced by the United States during negotiations of the Kyoto Protocol, the persuasiveness of which had been highly contested by the EU. How then can we reconcile the EU’s later adoption of emissions trading with its previous vociferous opposition?

(C) THE EU’S ESCAPE FROM NORM ENTRAPMENT

As we have seen, in a number of ways the landscape was becoming increasingly benign towards the development of an EU-wide emissions trading scheme. Yet in the international sphere the debate about the appropriateness of emissions trading and its effectiveness continued to obstruct attempts to negotiate rules implementing the Kyoto Protocol. Indeed, heated exchanges surrounding emissions trading was one of the key conflicts contributing to the derailment of The Hague negotiations in 2000. Whilst the multi-level considerations noted above represented powerful drivers in the process creating the EU ETS, the impact of the United States’ long-term

⁷⁷ Jan-Peter Voß, ‘Innovation Processes in Governance: The Development of “Emissions Trading” as a New Policy Instrument’ (2007) 34(5) *Science and Public Policy* 329, 338

⁷⁸ *ibid*

⁷⁹ Atle Christiansen and Jørgen Wettestad, ‘The EU as a Frontrunner on Greenhouse Gas Emissions Trading: How Did it Happen and Will the EU Succeed’ (2003) 3 *Climate Policy* 3, 9

⁸⁰ Commission, ‘Green Paper on Greenhouse Gas Emissions Trading Within the European Union: Summary of Submissions: Non-Governmental Submissions’, 14 May 2001

⁸¹ Chad Damro and Pilar Luaces Méndez, ‘Emissions Trading at Kyoto: From EU Resistance to Union Innovation’ (2003) 12(2) *Environmental Politics* 71, 75

⁸² Gerard H. Kelly, “Surveying Emissions Trading Through a Multi-Level Governance Lens” in Vasilka Sancin (ed), *International Environmental Law: Contemporary Concerns and Challenges* (GV Publishing 2012) 329

⁸³ Karen Bakker, ‘Neoliberalizing Nature? Market Environmentalism in Water Supply in England and Wales’ (2005) 93 *Annals of the Association of American Geographers* 542, 543

⁸⁴ Ian Bailey and Sam Maresh, ‘Scales and Networks of Neoliberal Climate Governance: The Regulatory and Territorial Logics of European Union Emissions Trading’ (2009) 34 *Transactions of the Institute of British Geographers* 445, 447

advocacy of emissions trading is perhaps the most mystifying. Damro and Luaces Méndez have characterised the transformation in the EU's position as a process of policy transfer driven primarily by the EU's perception of necessity.⁸⁵ As commentators have emphasised, emissions trading was an alien policy instrument for the EU. As such, during the Kyoto Protocol negotiations and later during The Hague negotiations, the EU was facing a potentially significant disadvantage because its own system was so completely unfamiliar with implementing this type of instrument. However, interaction in this transnational process ultimately also contributed to a progressive learning process within the EU regarding market trading. Whilst Damro and Luaces Méndez have characterised the EU's subsequent implementation of an emissions trading scheme as “*nothing more* than the introduction of an instrument to deal with already established policy objectives”,⁸⁶ Cass has instead persuasively emphasised the profound normative implications which acceptance and adoption of market trading by the EU necessarily required.⁸⁷

Normative considerations are particularly influential within the EU actor constellation. Some scholars have suggested that the EU is a qualitatively distinct normative power emphasising “the ideational impact of the EU's international identity/role as representing normative power”.⁸⁸ During climate negotiations with the United States, the EU had emphasised the importance of domestic climate action and had sought to cap the use of flexibility mechanisms, rejecting the American approach as a crass attempt to “buy its way out of its Kyoto commitments”.⁸⁹ However, as a “synergistic and multi-level mix of factors”⁹⁰ began to emerge propelling the EU towards emissions trading, the EU increasingly faced a situation aptly described as “norm entrapment”.⁹¹ Drawing on Schimmelfennig's research in the context of the EU's eastern expansion,⁹² Cass has defined this scenario as “the inability to pursue a preferred policy that violates a norm because of prior rhetorical affirmation of the norm”.⁹³ Consequently, even as emissions trading garnered support internally, the EU remained trapped by the normative objections against the idea which it had raised earlier. As Voß has explained, substantial efforts were invested in reframing emissions trading from a strategic device in the hands of the United States to dilute binding emission reduction commitments to an effective and efficient instrument for climate governance in the EU.⁹⁴ When the Bush administration withdrew from the Kyoto Protocol in early 2001 describing it as fatally flawed, the necessary space was created for the EU to reframe emissions trading. As a result, a concept which the EU had previously and with considerable

⁸⁵ Chad Damro and Pilar Luaces Méndez, ‘Emissions Trading at Kyoto: From EU Resistance to Union Innovation’ (2003) 12(2) *Environmental Politics* 71

⁸⁶ Chad Damro and Pilar Luaces Méndez, ‘Emissions Trading at Kyoto: From EU Resistance to Union Innovation’ (2003) 12(2) *Environmental Politics* 71, 88 (Emphasis Added)

⁸⁷ Loren Cass, ‘Norm Entrapment and Preference Change: The Evolution of the European Union Position on International Emissions Trading’ (2005) 5(2) *Global Environmental Politics* 38

⁸⁸ Ian Manners, ‘Normative Europe: A Contradiction in Terms?’ (2002) 40(2) *Journal of Common Market Studies* 235, 238

⁸⁹ Peter Jorgenson, Commission spokesman, 1 April 1998.

⁹⁰ Atle Christiansen and Jørgen Wettestad, ‘The EU as a Frontrunner on Greenhouse Gas Emissions Trading: How Did it Happen and Will the EU Succeed?’ (2003) 3 *Climate Policy* 3, 8

⁹¹ Loren Cass, ‘Norm Entrapment and Preference Change: The Evolution of the European Union Position on International Emissions Trading’ (2005) 5(2) *Global Environmental Politics* 38

⁹² Frank Schimmelfennig, ‘The Community Trap: Liberal Norms, Rhetorical Action, and the Eastern Enlargement of the European Union’ (2001) 55(1) *International Organization* 47

⁹³ *Ibid.*, 39

⁹⁴ Jan-Peter Voß, ‘Innovation Processes in Governance: The Development of “Emissions Trading” as a New Policy Instrument’ (2007) 34(5) *Science and Public Policy* 329, 339

success delegitimised as an American attempt to evade domestic responsibilities was instead reconstructed as a legitimate strategy to salvage the Kyoto Protocol. Ironically, the withdrawal of the United States from the Protocol, far from delivering the coup de grâce to the Kyoto framework,⁹⁵ facilitated the rapid development of the world's largest carbon market. As noted by Brussels insiders, “the huge luck the Commission had was Bush’s withdrawal...It united the EU in an extraordinary way.”⁹⁶

Yet the EU’s core aim of constructing an international framework was far from abandoned. The architects of the EU ETS recognised that whilst it represented “a major novelty in the way the EU approaches environmental regulation”,⁹⁷ the EU ETS was also an experiment which could form the prototype for developments elsewhere. As Christiansen and Wettstad aptly recognised, the EU “sees its system in a more long-term, global perspective”.⁹⁸ Some commentators expected the EU to lead attempts to develop new governance undertakings in the field, carving out a “climate hegemon” role by not only challenging, but also persuading the United States to participate.⁹⁹ An emphasis on the potential connectability of the EU ETS with schemes elsewhere, but particularly a trans-Atlantic link, has been thematic in the literature.¹⁰⁰ However, the stellar growth of emissions trading has raised numerous concerns and it is important that the instrument does not become an end in itself. Bailey and Wilson have cautioned that the convergence of government and industry viewpoints concerning emissions trading risks contributing towards a potential ideological and policy “lock in”.¹⁰¹ However, as emphasised earlier, perspectives challenging the dominance of emissions trading in climate law remain of enduring critical value by re-evaluating the ideological foundations and social and environmental consequences of the new carbon economy and re-imagining alternative governance frameworks. Such critiques are also fundamental to the process of institutional learning which has long been acknowledged as crucial to the EU ETS project.¹⁰² During the first two phases of the EU ETS, a spirit of experimentalism was especially evident and openly acknowledged. In fact, this

⁹⁵ David Victor, *The Collapse of the Kyoto Protocol and the Struggle to Slow Global Warming* (Princeton University Press 2001)

⁹⁶ Jørgen Wettstad, ‘The Making of the 2003 EU Emissions Trading Directive: An Ultra-Quick Process due to Entrepreneurial Efficiency’ (2005) 5(1) *Global Environmental Politics* 1, 17

⁹⁷ Jos Delbeke, ‘The Emissions Trading Scheme (ETS): The Cornerstone of the EU’s Implementation of the Kyoto Protocol’ (2006) 1(2) *European Review of Energy Markets* 1, 11

⁹⁸ Atle Christiansen and Jørgen Wettstad, ‘The EU as a Frontrunner on Greenhouse Gas Emissions Trading: How Did it Happen and Will the EU Succeed’ (2003) 3 *Climate Policy* 3, 16

⁹⁹ Christian Egenhofer and Thomas Legge, ‘After Marrakech: The Regionalisation of the Kyoto Protocol’, Centre for European Policy Studies (2001) <http://old.ceps.eu/Article.php?article_id=232> accessed 17 September 2013

¹⁰⁰ Atle Christiansen and Jørgen Wettstad, ‘The EU as a Frontrunner on Greenhouse Gas Emissions Trading: How Did it Happen and Will the EU Succeed’ (2003) 3 *Climate Policy* 3, 15; Frank Convery, ‘Origins and Development of the EU ETS’ (2009) 43 *Environmental and Resource Economics* 391, 405

¹⁰¹ They elaborate: “[T]he faith apparently being placed in carbon commodification by international and national institutions, corporations, and individuals suggests the reproduction and ‘locking in’ of neoliberal, market-driven logics as an accepted methodology for dealing with climate change.”

See Ian Bailey and Geoff Wilson, ‘Theorising Transitional Pathways in Response to Climate Change: Technocentrism, Ecocentrism, and the Carbon Economy’ (2009) 41 *Environment and Planning A* 2324, 2335

¹⁰² As Jos Delbeke has emphasised: “Learning by doing’ is an important in-built feature of the Emissions Trading Directive”.

See Jos Delbeke, ‘Foreword’ in Farhana Yamin (ed), *Climate Change and Carbon Markets: A Handbook of Emission Reduction Mechanisms* (Earthscan 2005) xviii

experimentalist theme has arguably been a key element of the nascent governance framework since its inception and arguably guards against the concern that governance could become overly prescriptive.¹⁰³

IV. CONCLUSION

The implementation of the EU ETS has given rise to a paradoxical situation. In an extraordinarily short space of time emissions trading has evolved from being a much maligned and marginalised instrument to becoming the cornerstone of EU climate governance. The emergence of the EU as one of the primary innovators of emissions trading by developing the EU ETS as well as advocating an international trading framework has resulted in a certain Europeanisation of the concept. This was far from predictable.

However, as Convery has identified, the sapling, which became the EU ETS was a product of two failures.¹⁰⁴ First, the carbon tax initiative, which the Commission had championed throughout the 1990s failed to navigate the Scylla of competitiveness reservations and the Charybdis of national sovereignty concerns. Even with political agreement, it was increasingly recognised that achieving the desired emissions reductions from taxation initiatives would likely require successive iterative “trial-and-error” adjustments in tax rates.¹⁰⁵ Second, the Commission’s efforts during negotiation of the Kyoto Protocol to prevent the inclusion of flexibility mechanisms were ultimately unsuccessful. Damro and Luaces Méndez have commented that the question of whether emissions trading would have been adopted by the EU “in the absence of the protocol remains partially unanswered”.¹⁰⁶ However, it is extraordinarily difficult to envisage conditions under which the EU could have escaped from the norm entrapment within which it was confined following its intensive activity to delegitimise emissions trading during international negotiations.

Pohlmann has acknowledged that multiple factors contributed to the EU’s shift towards emissions trading.¹⁰⁷ The inclusion of the concept in the Kyoto Protocol certainly gave rise to a perception that the practical implementation was

¹⁰³ As Armitage articulates this concern: “[R]endering governance a technical process framed by a suite of prescribed principles or attributes may contribute to the discounting of crucial but less tangible components of governance.”

See Derek Armitage, ‘Governance and the Commons in a Multi-Level World’ (2008) 2(1) *International Journal of the Commons* 7, 25.

This is not to suggest an anarchic vision of governance. Indeed, Scharpf and Zürn correctly observe that in “every governance structure, there is a basic authority-exchange relationship.”

See Michael Zürn, ‘Global Governance as Multi-Level Governance’ in Henrik Enderlein, Sonja Wälti and Michael Zürn (eds), *Handbook on Multi-Level Governance* (Edward Elgar 2010) 80, 88 (Emphasis Added).

See also Charles F Sabel and Jonathan Zeitlin, ‘Learning from Difference: The New Architecture of Experimentalist Governance in the EU’ in Charles F Sabel and Jonathan Zeitlin (eds), *Experimentalist Governance in the EU: Towards a New Architecture* (Oxford University Press 2010) 5

¹⁰⁴ Frank Convery, ‘Origins and Development of the EU ETS’ (2009) 43 *Environmental and Resource Economics* 391, 392

¹⁰⁵ Frank Gagelmann and Bernd Hansjürgens, ‘Climate Protection through Tradable Permits: The EU Proposal for a CO₂ Emissions Trading Scheme in Europe’ (2002) 12(4) *European Environment* 185, 189

¹⁰⁶ Chad Damro and Pilar Luaces Méndez, ‘Emissions Trading at Kyoto: From EU Resistance to Union Innovation’ (2003) 12(2) *Environmental Politics* 71, 90

¹⁰⁷ Markus Pohlmann, ‘The European Union Emissions Trading Scheme’ in David Freestone and Charlotte Streck (eds), *Legal Aspects of Carbon Trading* (Oxford University Press 2009) 237, 240

more a matter of “how”, rather than “if”.¹⁰⁸ The literature also reveals the considerable contribution of individual policy entrepreneurs, located within the Commission, to the evolution of the concept.¹⁰⁹ In fact, Braun and Santarius have suggested that the process of policy formation was dominated “by three or four ‘policy entrepreneurs’ who... repeatedly found ways to speed up the policy process, expand the room for manoeuvre and to create new latitude for other players”.¹¹⁰ This is consistent with Wettestad’s perspective that the implementation of the EU ETS represented an ultra-quick process due to entrepreneurial efficiency.¹¹¹

Whilst the lack of progress in the 1990s towards the implementation of effective EU climate governance mechanisms contributed to the positioning of a previously untried instrument centre stage, the synergistic and multi-level convergence of diverse actors’ interests reinforced the perceived valuable contribution which emissions trading could make to loosening the Gordian knot of climate change. Moreover, this was also consistent with a reframing process which was already underway, redefining environment-economy relations as potentially mutually supportive rather than antagonistic and a developing confidence in the EU’s climate leadership potential. However, the multi-scalar and multi-actor nature of the developing EU ETS has also raised significant questions regarding climate governance in the EU. The development of the design features of the EU ETS required mediation between competing state and industry interests, but this dialogue has occurred within a governance space where contestation and competition remain as evident as control. Moreover, the EU’s vocal championing of emissions trading remains a high-risk strategy from a policy perspective. Whilst the espousal of emissions trading has contributed to repositioning climate governance as a core Union policy objective, success or failure in this sphere will most definitely affect the EU’s external presence.¹¹²

Nonetheless, as the EU ETS continues to occupy a preeminent position in the EU’s climate governance landscape, it can be expected that the intertwining of scales and actor constellations necessary to implement emissions trading in the EU will continue to have major implications for the internationalisation and governability

¹⁰⁸ Ibid; Peter Zapfel and Matti Vainio, ‘Pathways to European Greenhouse Gas Emissions Trading: History and Misconceptions’ (2002) Fondazione Eni Enrico Mattei Working Paper Series 85/2002, 10; and, Jørgen Wettestad, ‘The Making of the 2003 EU Emissions Trading Directive: An Ultra-Quick Process due to Entrepreneurial Efficiency’ (2005) 5(1) *Global Environmental Politics* 1, 16.

¹⁰⁹ For example, Christiansen and Wettestad describe Jos Delbeke as “very insistent on seeing a successful trading scheme adopted” having previously witnessed the failure of the carbon tax. See Atle Christiansen and Jørgen Wettestad, ‘The EU as a Frontrunner on Greenhouse Gas Emissions Trading: How Did it Happen and Will the EU Succeed’ (2003) 3 *Climate Policy* 3, 6

¹¹⁰ Marcel Braun and Tilman Santarius, ‘Climate Politics in the Multi-Level Governance System: Emissions Trading and Institutional Changes in Environmental Policy-Making’ (2008) Wuppertal Institute for Climate, Environment and Energy Paper 172/2008, 21

¹¹¹ ‘The Making of the 2003 EU Emissions Trading Directive: An Ultra-Quick Process due to Entrepreneurial Efficiency’ (2005) 5(1) *Global Environmental Politics* 1

¹¹² John Vogler has also advanced this concern and, indeed, perhaps the evidence of potential materialisation of this was visible during the 2009 Copenhagen round of climate negotiations which witnessed the marginalisation of the EU as the United States directly agreed an accord with the BASIC bloc.

See Nils Föll, ‘The European Union as an Actor on the Example of the International Climate Regime’, Hochschule Bremen / University of Applied Sciences Bremen Internationaler Studiengang Politikmanagement (ISPM) Polity, Politics and Policy-Making in the European Union (2004) <<http://www.hausarbeiten.de/faecher/vorschau/108920.html>> accessed 17 September 2013

of emissions trading.¹¹³ The process by which the EU developed its emissions trading scheme, particularly the drivers influencing this process, offer salient lessons for third countries considering the adoption of market trading. The prior inexperience of the EU in deploying market instruments in an environmental context coupled with deeply embedded normative objections concerning the role of the market, whilst delaying the EU's embrace of emissions trading, ultimately failed to stymie this regulatory evolution.

¹¹³ Ian Bailey and Sam Maresh, "Scales and Networks of Neoliberal Climate Governance: The Regulatory and Territorial Logics of European Union Emissions Trading" (2009) 34(4) *Transactions of the Institute of British Geographers* 445, 447; and Gerard H. Kelly, "Surveying Emissions Trading Through a Multi-Level Governance Lens" in Vasilka Sancin (ed), *International Environmental Law: Contemporary Concerns and Challenges* (GV Publishing 2012) 329