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New Rules, New Politics, Same Actors— Explaining Policy Change in the EU ETS

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Abstract: The allocation rules for phase one EU ETS emissions permits demonstrates that energy generators were lobbying winners because they successfully blocked differential treatment (rules) from energy intensive industries, who cannot pass-on real or nominal costs of permits to consumers. As a result, these generators benefited from windfall profits. In phase three, the reverse is true; energy intensive industries successfully established differential rules. These rules will provide energy intensive industries with free allocations while most generators will be subject to 100 per cent auctioning, thus removing the windfall profit mechanism for generators. Literature applying public choice theory to this case study predicted free permit allocations but not windfall profits for generators nor the change in allocation rules in phase three. This paper presents the argument that a shift in Wilson's Typology from client to interest group politics best explains these changes and provides a good framework for other jurisdictions considering emissions trading reforms. This dynamism in Wilson's Typology is demonstrated by comparing the positions of industry associations representing energy generators and energy intensive industries with the two directives before and after consultations, which facilitates the identification of lobbying winners and losers. The EU ETS case study is fertile ground for testing regulatory theories that explain shifts away from clientelist policies with high levels of rent-seeking and towards more optimal policy equilibriums. This paper provides both a theoretical framework and empirical evidence for how emissions trading policy can be improved, despite rent-seeking, once it clears the legislative hurdle.

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PART ONE: INTRODUCTION

Emissions trading (ET) is an important regulatory instrument to address climate change because it is said to be efficient, effective, and equitable.¹ While all three claims are subject to criticism, this paper uses the European Emissions Trading Scheme's (ETS) regulatory failures as a case study because it is the first of its kind and provides valuable policy lessons for ET programs elsewhere.² Specifically, industry lobbying for free European Union Allowances (EUA) in phase one (2005-2007) and phase two (2008-2012) has been criticised for creating windfall profits benefiting electricity generators (generators) and raising electricity prices for both domestic consumers and energy intensive industries (EIIs). However, phase three (2013-2020) allocation rules require 100 per cent auctioning for most generators and free permits for some EIIs.

Table Two below explains that phases one and two were the product of the same directive and consultation process. Phase one is now complete which provides a rich source of empirical evidence and academic literature. Phase three, however, was subject to a separate directive and consultation process. References to phases one and three throughout this paper also refer to their enabling directives unless otherwise specifically stated.

The puzzle is: what explains the change in permit allocation rules between ETS phases one and three? In particular, as actor preferences have not significantly changed and most private interest theories of regulation predict the static dominance of producer interests at the expense of diffuse cost-bearing publics, why did this shift take place?

This paper will argue that Wilson's politics of regulation Typology is more applicable to EU policymaking than private interest theories and that, within EU policymaking, a shift has taken place that is consistent with a movement that Wilson would typify as a change from client politics to interest group politics.³ This Wilsonian shift usefully explains the change in EUA allocation rules between ETS phases one and three.

The ETS is an interesting case study because it demonstrates the possibility of policy shifts that can be captured within the terms of Wilson's Typology. Such changes, moreover, can be tracked evidentially. The ETS consultation process for phases one and three directives was transparent. All lobbying positions are available on the EU Commission's (commission) website. EURELECTRIC represented generators in both phases. EIIs lobbied mainly individually in phase one, but formed the Alliance of Energy Intensive Industries (AEII) in phase three.

¹ N. Stern, Blueprint for a Safer Planet: How to Manage Climate Change and Create a New Era of Progress and Prosperity (London: The Bodley Head, 2009).

² R. Baldwin, Regulation Lite: The Rise of Emissions Trading' (2008) 2 Law and Financial Markets Review 3, 262. Regulatory failures are defined as: 'a regulation with a purpose to improve the world but which fails to produce a net benefit to society' in C. Sunstein, 'Paradoxes of the Regulatory State' (1990) 57 University of Chicago Law Review 407, 412.

³ J.Q. Wilson, The Politics of Regulation (New York: Basic Books, 1980).

Comparing the positions of these associations with the original commission proposals and final directives in both phases allows, with certain assumptions, for the identification of lobbying winners and losers. The results of this analysis will then be matched with Wilson's typological descriptions to show that his theory provides a better explanation for the change in allocation rules.

As Wilson predicted greatest rent-seeking with client politics, conclusions will assess the prospects of ETS reflecting optimal policy prescriptions.⁴ These conclusions may be of significance to policymakers designing American, Australian, and global ET schemes.

PART TWO: UNDERSTANDING ALLOCATIONS

Relatively few scholars have applied private interest theories to ET schemes, and even fewer have used Wilson's Typology. The literature also struggles to explain changes in allocation rules between phases. Although some scholars apply Wilson's Typology to analyse American SO₂ trading and ETS phase one, to date none have applied Wilson's Typology to phase three's final EUA allocation; instead the policy change between ETS phases have been explained using EU policymaking theories not Wilson's more universal typology that considers the distribution of regulatory costs and benefits.⁵ Also, while a number of authors have explained free over-allocation of EUAs in phase one, none predicted the windfall profits of generators nor considered potential changes in allocation methods after 2012.⁶

This section will assess the relevance of private interest theories to this topic, particularly their applicability to EU policymaking and their ability to explain

⁴ See section 'What prospects for phase three?' below.

⁵ P.L. Joskow and R. Schmalensee, 'The Political Economy of Market-Based Environmental Policy: The U.S. Acid Rain Program' (1998) 41 *Journal of Law and Economics* 37; L. Heinzerling, 'Selling Pollution, Forcing Democracy' (1995) 14 *Stanford Environmental Law Journal* 300; B.J. Cook, 'The Politics of Allowance Allocation in Emissions Trading Systems: Implications for Climate Change Policy Design' (unpublished working paper, 2009) 1. For ETS phase three, J. Wettestad, 'EU Energy-Intensive Industries and Emissions trading: Losers Becoming Winners' (2009) 19 *Environmental Policy and Governance* 309, the author analysed the phase three commission proposal, not the final directive, but in a separate join publication did consider the final directive, see J. B. Skjoerseth and Jorgen Wettestad, 'The EU Emissions Trading System Revised (Directive 2009/29/EC)' in S. Oberthur and M. Pallemaerts (eds), *The New Climate Policies of the European Union: Internal Legislation and Climate Diplomacy* (Brussels: Brussels University Press, 2010) 65-93. However, in both cases the authors do not use Wilson's Typology, instead they analyze changes between directives using EU policymaking theories such as liberal intergovernmentalism and multi-level governance. Wilson's Typology is much more transferable to explaining policy decisions in other liberal democracies because it is a general theory with no specific application to jurisdictions unlike EU theories.

⁶ J.T. Boom, Interest Group Preference for Instruments of Environmental Policy: An Overview' in C. Bohringer, M. Finus, and C. Vogt. (eds), *Controlling Global Warming: Perspectives from Economics, Game Theory, and Public Choice* (Cheltenham: Edward Elgar, 2002); P. Markussen and G. T. Svendsen, 'Industry Lobbying and the Political Economy of GHG Trade in the European Union' (2005) 33 *Energy Policy*; G.T. Svendsen, 'Lobbying and CO2 Trade in the EU' in B. Hansjurgens (ed), *Emissions Trading for Climate Policy: US and European Perspectives* (Cambridge: Cambridge University Press, 2005).

regulatory change. The case will then be made for using Wilson's approach instead.

PRIVATE INTEREST THEORIES AND EMISSIONS TRADING

Private interest theories and the policymaking process

Private interest theories all highlight the risks of capture caused by information asymmetry and revolving door career paths.⁷ While modern versions of these theories now explain business preference for ET, historically they predicted the dominance of command and control regulation.⁸ Both analyses point to potential rent-seeking with either instrument resulting from Hayek's 'knowledge problem' of insurmountable informational asymmetries.⁹ More recently, scholars have signalled the importance of market-based instruments (MBI) like carbon taxes or ET to reduce this asymmetry and discourage 'revolving door' career paths that contribute to capture. By choosing ET instead of best available technology mandates, or cap and trade systems rather than baseline and credit approaches, asymmetry and the potential for capture is reduced.¹⁰ Despite the theoretical foundations of various private interest approaches, there exists little empirical evidence to support either capture or revolving-door careers.¹¹ Government failure has also been criticised as a myth.¹²

There are two dominant schools of private interest theories, each with different assumptions about actor motivation. The Chicago school of law and economics believes legislators and regulators seek to maximise their personal wealth. Virginian public choice scholars assume that in addition to financial interests, these actors are motivated by electoral and ideological gains. In both models, regulatees seek to extract rents (excess profits) caused by government intervention in the economy (eg limiting competition by awarding monopolies or creating other barriers to market entry).¹³ Despite the strong empirical evidence for private interest theories, they have been criticised for a lack of applicability to EU policymaking and a failure to adequately explain policy change.

⁷ Defined as when: 'vested interests bias the incentives of regulators and governments to act in their interests rather than the broader public interest'. See D. Helm, 'Regulatory Reform, Capture and the Regulatory Burden' (2006) 22(2) Oxford Review of Economic Policy 169.

⁸ n 6 above; J.M. Buchanan and G. Tullock, 'Polluters' Profit and Political Response: Direct Control vs. Taxes' (1975) 65(1) *The American Economic Review* 139.

⁹ n 2 above; F.A. Hayek, *Law, Legislation and Liberty : A New Statement of the Liberal Principles of Justice and Political Economy* (London: Routledge & Kegan Paul, 1982); G. Tullock, 'The Welfare Coasts of Tariffs, Monopolies, and Theft' (1967) 5 *Western Economic Journal* 224. Hayek's critique of central planning is conceptually different from public choice, because it does not assume policymakers are motivated by self-interest. See M. Pennington, *Planning and the Political Market: Public Choice and the Politics of Government Failure* (London: Athlone, 2000) 11.

¹⁰ n 2 above, 263; n 7 above, 180.

¹¹ E. Bo, 'Regulatory Capture: A Review' (2006) 22(2) Oxford Review of Economic Policy 203, 215.

¹² P.J., Boettke, C.J. Coyne, et al, 'Saving Government Failure Theory from Itself: Recasting Political Economy from an Austrian perspective' (2007) 18 *Constitutional Political Economy* 127, 135.

¹³ R. Baldwin and M. Cave, Understanding Regulation: Theory, Strategy, and Practice (Oxford: Oxford University Press, 1999) 22.

The limits of private interest theories

1. EU policymaking

Foster reveals the challenges of applying Chicagoan and Virginian theories to EU policymaking through his analysis of network industry ownership in Britain.¹⁴ In rejecting a Chicagoan explanation for nationalisation, he describes the centrality of pork-barrel lobbying to Chicagoan models.¹⁵ The Chicagoan approach is therefore more applicable to political systems like America with liberal campaign finance laws, weak political parties, and first-past the post-electoral systems, a combination rarely found in Europe.¹⁶ Following an intergovernmentalist approach to EU policymaking, member states, and therefore European institutions, are less exposed to Chicagoan arguments.¹⁷ For example, the EU Parliament (parliament) cannot initiate legislation and is elected by proportional representation, and other EU institutions are not directly elected. Parliament also operates by consensus through transnational groupings and is therefore less exposed to capture in the Chicagoan sense.¹⁸ This likely explains why parliament has always favoured EUA auctioning.¹⁹

At first glance, Virginian explanations are more convincing. However, following a supranationalist argument, the commission dominates and is the locus for most lobbying activity, although the plurality of EU institutions allows lobbyists to venue shop and should not be regarded as monolithic.²⁰ Nevertheless, the EU policymaking dynamic is different to congressional or parliamentary systems because the powerful commission seeks neither electoral nor ideological gains in the Virginian sense because it is an unelected bureaucracy. The commission is arguably motivated less by ideology than by Brussels empire-building, jurisdictional expansionism, and budget maximisation through regulation.²¹ Authors have highlighted the growth and domination of interest group activity by corporate interests in Brussels and how the commission gives insider status to business and funds groups – non-governmental organisations (NGOS) – that provide informational support for its agenda of European integration.²² This

¹⁴ C. Foster, 'Rival Explanations of Public Ownership, Its Failure and Privatization' (1994) 72(4) *Public Administration* 489.

¹⁵ ibid, 497.

¹⁶ C. Hood, Explaining Economic Policy Reversals (Buckingham: Open University Press, 1994) 26.

¹⁷ A. Moravcsik, 'Preferences and Power in the European Community: A Liberal Intergovernmentalist Approach' (1993) 31(4) *Journal of Common Market Studies* 473; A. Moravcsik, *The Choice for Europe. Social Purpose and State Power from Messina to Maastricht* (London: Routledge, 1998).

¹⁸ A. Michaelowa, 'Impact of Interest Groups on EU Climate Policy' (1998) 8 *European Environment* 152, 157.

¹⁹ Markussen and Svendsen, n 6 above, 253.

²⁰ G. Majone, 'The Rise of the Regulatory State in Europe' (1994) 17(3) *West European Politics* 77, 85; G.T. Svendsen, *The Political Economy of the European Union: Institutions, Policy and Economic Growth* (Cheltenham: Edward Elgar, 2003) 66; for an illustration of EU institutions as arenas of power see Skjoerseth and Wettestad, n 5 above, 65-93.

²¹ Svendsen, ibid, 131; for an illustration of EU policymaking theories that demonstrate this see Skjoerseth and Wettestad, ibid, 65-93.

²² For example, ibid, 93; Svendsen, n 6 above, 154, where the author posits that centralised policymaking at the commission makes lobbying cheaper than more fragmented polities like America. See, also, C. Mahoney, 'The Power of Institutions State and Interest Group Activity in the European Union' (2004)

provides a severe challenge to private interest theories because it reverses the direction of capture. Part Four will discuss evidence of this in ETS phase three.

2. Explaining policy change

The Chicago school struggles to explain policy change more than other regulatory theories.²³ If regulation is a function of client politics (see Table One), then what explains policy reversals that reduce rents like full EUA auctioning?²⁴ While Chicagoans such as Peltzman, Keeler, and Noll have argued that endogenous processes of 'rent dissipation' cause shifts to deregulation, evidence of this phenomenon is patchy.²⁵ In addition, no risk of windfall profit dissipation exists for generators because the industry is not exposed to global competition. Virginian theories better explain change because the utility functions of politicians are broader; they are motivated by ideological gains and shifting voter preferences.²⁶ Therefore, electoral backlashes (against producer dominance) or 'new ideas' are endogenous to Virginian theory and can explain deregulation.²⁷ While other regulatory theories such as pluralism and institutionalism are important to understand policy dynamism, a discussion of them is beyond the scope of this paper. Instead, the following analysis will consider the dominant literature: public choice application to ETS phase one.28

Public choice application to emissions trading

Most literature applies public choice to ET because it reveals the risks of regulatory failure. Unless planners have sufficient incentives to act on and acquire the necessary information to correct market failures, it is a 'nirvana fallacy' to assume that politics can fix markets.²⁹ Political markets are mired with transaction costs and collective action problems that generate client politics equilibriums.³⁰ The rational ignorance of voters provides little incentive for monitoring or mobilising

⁵⁽⁴⁾ European Union Politics 441, 443; D. Coen, 'Empirical and Theoretical Studies in EU Lobbying' (2007) 14(3) Journal of European Public Policy 333, 341; M. Braun, 'The Evolution of Emissions Trading in the European Union-The Role of Policy Networks, Knowledge and Policy Entrepreneurs' (2008) Accounting, Organisations and Society (doi:10.1016/j.aos.2008.06.002).

²³ n 16 above, 27.

²⁴ K. Neuhoff and F.C. Matthes "The Role of Auctions in Emissions Trading' (Climate Strategies Working Paper, Cambridge, UK: Climate Strategies, 2008) 4.

²⁵ S. Peltzman, "The Economic Theory of Regulation after a Decade of Deregulation' (Brookings Papers on Economic Activity, Washington: Microeconomics, 1989); T. Keeler, "Theories of Regulation and the Deregulation Movement' (1984) 44(1) *Public Choice* 103; R.G. Noll, 'Economic Perspectives on the Politics of Regulation' in R. Schmalensee and R.D. Willig (eds), *Handbook of Industrial Organisation* (New York: Elsevier, 1989); n 16 above, 32.

²⁶ This is strength rather than a weakness in terms of loss of predictive power which Baldwin and Cave argue, n 13 above, 25.

²⁷ Keeler, n 25 above, 130; n 14 above, 501.

²⁸ A.S. MacFarlane, 'Interest Groups and Political Time: Cycles in America' (1991) 21(3) British Journal of Political Science 257; M. Schneiberg, 'Combining New Institutionalisms: Explaining Institutional Change in American Property Insurance' (2005) 20(1) Sociological Forum 93.

²⁹ H. Demsetz, 'Information and Efficiency: Another Viewpoint' (1969) 12 *Journal of Law and Economics* 1, 1; Pennington, n 9 above, 7.

³⁰ Pennington, ibid, 17.

against rent-seeking by small, wealthy, organised lobby groups.³¹ Politicians and bureaucrats are monopolists in their domains and have strong incentives to make short-term gains through rent distribution and to empire-build with clientelist coalitions.³² Such has been the strength of rent-seeking in both America and Australia that ET programs have failed to clear legislative hurdles in both countries (see the section on Policy implications below). Indeed, America has abandoned the more efficient economy-wide cap and trade program in favour of a sectoral approach, with ET primarily for electric utilities; and even the legislative success of this proposal is uncertain.³³

Public choice literature defines the self-interests of large emitters (large electricity generators, EIIs), politicians, environmental NGOs (ENGOS), and bureaucrats in a consistent way. Generally speaking, large emitters are profit maximisers with goals to minimise climate policy costs and/or gain additional rents. This explains their preference for ET compared to carbon taxes.³⁴ Within this group, large electricity producers in Europe and America favour grandfathered permits.35 Elected politicians (parliament and council) are assumed to be risk-averse opportunists with a primary objective of re-election.³⁶ ENGOs have historically focused on targets and not policy instruments because they raise funds through easily understandable campaigns.³⁷ However, significant literature exists analysing the preference and opposition of ENGOS to MBIS and ET in particular.³⁸ Bureaucrats (commission) prefer instruments that allow discretionary decisions, require negotiation and are based on special information needs. This allows them to empire-build by budget-raising, to link climate policy with other growth areas, and to play a central role in implementation.³⁹ It also demonstrates a bias towards the conservatism of command and control regulation.⁴⁰ These defined interests allow public choice theory to identify whether groups are winners or losers in political markets. Markussen and Svenden identified winners and

³¹ M. Olson, *The Logic of Collective Action: Public Goods and the Theory of Groups* (Oxford: Oxford University Press, 1965); I. Somin, 'Voter Ignorance and the Democratic Ideal' (1998) 12(4) *Critical Review* 413.

³² J.M. Buchanan and G. Tullock, *The Calculus of Consent : Logical Foundations of Constitutional Democracy* (Ann Arbor: University of Michigan Press, 1962).

³³ US Congress-Senate. American Power Act. Discussion Draft. 111th Cong., 2nd sess. (May 2010) 1-987 at http://kerry.senate.gov/americanpoweract/pdf/APAbill.pdf (last visited 15 May 2010).

³⁴ n 2 above, 264.

³⁵ G.T. Svendsen, *Public Choice and Environmental Regulation: Tradable Permit Systems in the United States and CO2 Taxation in Europe* (Cheltenham: Edward Elgar, 1998) 119.

³⁶ Boom, n 6 above, 220.

³⁷ n 18 above, 158.

³⁸ S. Kelman, What Price Incentives? Economists and the Environment (Boston, Mass.: Auburn House, 1981); N.O. Keohane, R.L. Revesz, et al, "The Positive Political Economy of Instrument Choice in Environmental Policy' (Discussion Paper 97-25, Washington D.C.: Resources for the Future, 1997); B.R. Dijkstra, The Political Economy of Environmental Policy: A Public Choice Approach to Market Instruments (Cheltenham: Edward Elgar, 1999); Svendsen, n 35 above.

³⁹ n 18 above, 156; Svendsen, n 20 above, 107.

⁴⁰ Boom, n 6 above, 235.

losers for *Directive one*, while Wettestad did so for *Commission Proposal Two* (see Table Two for details of these documents).⁴¹

With these interests in mind, public choice theory has made a number of predictions that have been confirmed by empirical evidence to explain why ET is counterproductive and deviates from economic prescriptions.⁴² For example, public choice predicts that the preferences of small, powerful, cohesive industry lobbies will be reflected in permit allocation rules (free grandfathering) and abatement levels (lower). Empirically, the American SO₂ trading scheme and the ETS evidenced this phenomenon.⁴³ At an international level, business preferences are reflected in the Kyoto Protocol Joint Implementation and Clean Development Mechanism.⁴⁴ The large gap between the ambition of international agreements and the reality of domestic implementation can also be explained by the relatively greater strength of climate protection interests at the international level.⁴⁵ Finally, the divergence between mandatory ET legislation in Europe and America or Australia can be partly explained by the commission's self-interest in institutionalising the ETS.⁴⁶

While these failures cannot be disputed, ETS phase three is an improvement on phase one. Public choice struggles to explain this phenomenon because actor preferences have not significantly changed (see Case Study Analysis below). The commission always favoured auctioning, and industry always preferred free permits. Even while EIIs objected to generator windfall profits they favoured free allocation for themselves and demanded compensation for higher energy prices. EURELECTRIC also begrudgingly accepted auctioning in phase three (see Table Six in Appendix One). Wilson's Typology and derived literature provide a better

⁴¹ Markussen and Svendsen, n 6 above; Wettestad, n 5 above; see also Skjoerseth and Wettestad, n 5 above, 65-93, for a discussion of how EU theories explain allocation rule changes in the ETS.

⁴² R.W. Hahn, 'Economic Prescriptions for Environmental Problems: How the Patient Followed the Doctor's Orders' (1989) 3(2) *The Journal of Economic Perspectives* 95; P. Grabovsky, 'Counterproductive Regulation' (1995) 23 *International Journal of the Sociology of Law* 347.

⁴³ Heinzerling, n 5 above; Joskow and Schamalensee, n 5 above; N. Anger, C. Bohringer, et al, Public Interest vs. Interest Groups: Allowance Allocation in the EU Emissions Trading Scheme' (ZEW Discussion Paper No 08-023, Mannheim, Germany: Center for European Economic Research, 2008); H. Tschochochei and J. Zockler, 'Business and Emissions Trading from a Public Choice Perspective-Waiting for a New Paradigm to Emerge' in R. Antes, B. Hansjurgens, and P. Lamathe (eds), *Emissions Trading: Institutional Design, Decision Making and Corporate Strategies* (New York: Springer, 2008).

⁴⁴ J.T. Boom and G.T. Svendsen, "The Political Economy of International Emissions Trading Choice: Empirical Evidence' (Discussion Paper 00-19, Copenhagen: Institute of Economics, University of Copenhagen, 2000); R. Falkner, *Business Power and Conflict in International Environmental Politics* (Basingstoke: Palgrave Macmillan, 2008) 122.

⁴⁵ n 18 above; Falkner, ibid; A. Michaelowa 'Climate Policy and Interest Groups-A Public Choice Analysis' (1998) November/December *Intereconomics* 251.

⁴⁶ Svendsen, n 20 above; J.A. Layzner, 'Deep Freeze: How Business has Shaped the Global Warming Debate in Congress' in M.E. Kraft and S. Kamienieck (eds), *Business and Environmental Policy: Corporate Interests in the American Political System* (Cambridge, Mass: MIT Press, 2007); M. McKenzie, 'Lessons for Australia from the European Union Emissions Trading Scheme' (2008) 5 *Macquarie Journal of International Comparative Environmental Law* 115. For a good analysis of how business preferences in Washington and Brussels led to different policy outcomes, see Braun, n 22 above; C. Egenhofer, 'The Making of the EU Emissions Trading: Scheme: Status, Prospects and Implications for Business' (2007) 25(6) *European Management Journal* 453.

analytical framework for explaining different allocation rules. This last discussion will complete the literature review.

WILSON'S TYPOLOGY

Wilson's Typology is a political rather than economic explanation for regulation. It complements public choice theory by providing a profile for successful rentseeking groups instead of simply assuming regulation is demanded and obtained.⁴⁷ Wilson's theory does not explain how benefits materialise because unlike Virginians and Chicagoans, Wilson ignores the consideration for regulatory bargains.⁴⁸ The Typology therefore suffers from a critique of generality, but is also more applicable to EU policymaking. The essence of Wilson's argument is that the distribution of regulatory costs and benefits is central to predicting rent-seeking levels. Wilson's Typology also provides roles for policy entrepreneurs, force of ideas, and other political explanations for regulatory change, because costs and benefits are not exclusively monetary. The importance of economic interests differs throughout Wilson's theory.⁴⁹

Wilson's Typology describes four politics of regulation. When benefits of regulation are concentrated and costs are dispersed, client politics (the Chicagoan original sin) emerges with very high levels of rent-seeking because cost-bearers face high barriers to collective action due to group size.⁵⁰ The general public (often cost-bearers) may not be aware of clientelist regulation because negotiations are usually opaque. However, NGOs are now important checks on this phenomenon.

Less favourable conditions for rent-seeking are expected in the following three circumstances. Firstly, when costs and benefits of regulation are concentrated, interest group politics emerges, meaning that regulation will benefit one group at the expense of another. Each side has an incentive to organise and exercise political influence with less rent-seeking resulting. While the public may sympathise with one group over another, its voice only is heard in general terms. In the second circumstance, costs and benefits are both dispersed, and all or most of society expects to both gain and pay. As such, both opponents and proponents of regulation may find it difficult to organise. A majoritarian politics will therefore emerge only when popular sentiment and elite opinions are convinced of regulatory benefits. Lastly, entrepreneurial politics occurs when the benefits of regulation are dispersed but the costs are concentrated. In this situation, opponents have strong incentives to block regulation. Yet even Wilson observed how policy entrepreneurs can mobilise latent public support despite collective action challenges. Table One illustrates Wilson's Typology with examples:⁵¹

⁴⁷ n 16 above, 24; n 13 above, 24.

⁴⁸ Noll, n 25 above, 1277.

⁴⁹ n 3 above, 361-372.

⁵⁰ Olson, n 31 above.

⁵¹ n 3 above, 365-372.

Benefits of	Costs of Regulation	
Regulation	Concentrated	Dispersed
Concentrated	Interest Group Politics	Client Politics
	Example: rail freight rate regulation	Example: restrictions on imports
Dispersed	Entrepreneurial Politics	Majoritarian Politics
	Example: restrictions on tobacco sales	Example: public smoking bans

Table One: Wilson's typology – the politics of regulation⁵²

Wilson's typology and emissions trading

To the author's knowledge, only three articles analyse ET regimes with Wilson's Typology and none compare changes between ETS phases one and three.⁵³ Joskow and Shmalensee concluded that free allocations in the American SO_2 trading scheme generated majoritarian politics because costs and benefits were widely distributed instead of weighted toward narrow economic or geographical interests.⁵⁴ A majoritarian equilibrium is synonymous with climate policy goals which: (1) internalise carbon costs so that they are borne by all carbon-intensive consumers; and (2) spread the benefits of climate stability widely. Patashnick draws the same conclusions to theorise why such general interest reforms are sustained. 55 However, both these analyses overlook how ET works in practice; some firms profited by passing-on costs while others could not. Cook's working paper instead characterises the SO₂ trading program as interest group politics because the final legislation pleased each affected party.⁵⁶ His analysis also finds evidence of interest group politics in ETS phase one because industries received free EUAs and competed for both exclusion and lower abatement targets. However, Cook does not address the issue of generator windfall profits in phase one, nor does his analysis extend to phase three which requires full auctioning for generators and free permits for most EIIs.57 Part Four below explains how these omissions are important counter-arguments to Cook's characterisation of phase

⁵⁶ n 5 above, 13.

⁵² Source: Adapted from Hood, n 16 above, 25.

⁵³ See n 5 above.

⁵⁴ n 5 above, 70, 81.

⁵⁵ E.M. Patashnik, *Reforms at Risk: What Happens After Major Policy Changes are Enacted* (Princeton: Princeton University Press, 2008) 153-154. General interest reforms are defined by Patashnik on page 2 as 'non-incremental change of an existing line of policymaking intended to rationalize governmental undertakings or to distribute benefits to some broad constituency'. Therefore Patashnik's conception is very similar to Wilson's entrepreneurial and majoritarian politics.

⁵⁷ ibid, 16.

one. This supports the paper's hypothesis that phase one was an example of client not interest group politics.

Explaining regulatory change using Wilson's typology

Wilson's Typology adds to existing ETS public choice literature because it better explains changes across phases. By recasting Svendsen and Cook's work in terms of client politics and analysing recent scholarship by Wettestad, Skjoerseth andGullberg, who use EU theories to demonstrate that EIIs won in phase three, valuable insights can be gained.⁵⁸ This paper will apply Wilson's Typology to both final ETS directives to explain different EUA allocation rules.

Wilson provides little explanation for shifts in his typology except for the possibility of entrepreneurial politics. He believes policy entrepreneurs are facilitated by crises and by the discovery of electoral ore from regulation that benefits scattered groups at the expense of narrow ones.⁵⁹ Keeler, Bendor, and Moe make this argument to explain deregulation.⁶⁰ However, Wilson is unclear as to whether entrepreneurial politics means blank slate regulation (new) or changes to regulation formed in client or interest politics equilibriums to reflect a new alignment of costs and benefits. His rather static view of cost-benefit distribution suggests the former, and therefore Wilson does not explain how regulation escapes the iron grip of client politics.

A small but fascinating body of scholarship develops Wilson's Typology to explain these changes; some of which was canvassed above (see Explaining policy change). Hood divides the literature between exogenous (force of ideas) and endogenous (interest group) explanations, although as discussed above, ideas are not necessarily exogenous to Wilson's model. For example, the very prescriptive success of Chicagoan theories may have undermined their descriptive accuracy through exogenous new ideas (regulatory failure) which facilitated shifts from client to entrepreneurial politics.⁶¹ Adding to Peltzman and Keeler's endogenous arguments analysed above, Hood describes a 'lose-to-win' strategy adopted by AT&T in accepting deregulation for access to new markets.⁶² Also, countermobilisation occurred when corporate consumers lobbied for deregulation of telecommunications markets to lower costs and compete with other financial centres. However, Hood explains that counter-mobilisation cuts both ways and

⁵⁸ Svendsen, n 20 above; Svendsen n 6 above; ibid; Wettestad, n 5 above; Skjoerseth and Wettestad, n 5 above, 65-93; A.T. Gullberg, "The European Electricity Sector and the EU ETS Review" (CICERO Working Paper 2008:01, Oslo: Center for International Climate and Environmental Research, 2008).

⁵⁹ Policy entrepreneurs are characterised as: well-educated, understanding complex ideas, having high social status and opinion-leadership. See J. Black, "Tomorrow's Worlds: Frameworks for Understanding Regulatory Innovation' in J. Black, M. Lodge, and M. Thatcher (eds), *Regulatory Innovation: A Comparative Analysis* (North Hampton, MA: Edward Elgar, 2005) 18-20; n 3 above, 370-371.

⁶⁰ Keeler, n 25 above, 130; J. Bendor and T. M. Moe, 'An Adaptive Model of Bureaucratic Politics' (1985) 79(3) *The American Political Science Review* 755, 768.

⁶¹ n 16 above, 28-29; M. Derthick and P.J. Quirk, *The Politics of Deregulation* (Washington, DC: Brookings Institution, 1985)

⁶² n 25 above; n 16 above, 30.

can cause a shift back from entrepreneurial to client politics.⁶³ The tendency of client politics to self-destruct may also explain shifts to interest group equilibriums, although very little literature explores this point. The case study analysis in Part Four below explores this self-destructive pattern in the ETS.

New scholarship provides explanations for the rise and sustainability of general interest reforms.⁶⁴ Patashnik surveys the literature and outlines three conditions for adoption: (1) policy entrepreneurs must lower information costs to mass publics by linking reform solutions to salient issues (eg by linking ET to GHG mitigation policy); (2) reform proponents must adopt procedural strategies to weaken the organisational advantages of narrow groups (eg by developing expert knowledge or changing committees structures); and lastly (3) reform advocates must use tactical concessions to neutralise political opposition (eg by providing free permits).65 Patashnik then argues that general interest reforms are most resilient when they upset coalitional patterns and stimulate the emergence of new vested interests and political alliances. This last point is significant because one of the advantages of ET compared to carbon taxes is that the former is easier to implement politically because policymakers can pay-off opponents and create new political constituencies that have a stake in ET programs.⁶⁶ However, somewhat paradoxically, this virtue can be a vice if rent-seeking is so strong that stakeholders lose faith in ET, resulting in a failure to implement in the first place. This phenomenon is currently being observed in both America and Australia.

In light of the literature, this paper addresses the following puzzle: what explains the different EUA allocation rules for generators and EIIs between ETS phases one and three? The proposed and tested hypothesis is: a shift can be seen in Wilson's Typology, as one from client politics to interest group politics. This shift explains the change in allocation rules.

PART THREE: A SHORT HISTORY OF THE EU ETS

The ETS is the cornerstone of EU climate policy. Launched in 2005, it is the first cross-border greenhouse gas emissions (GHG) trading scheme and regulates more than 11,500 installations or about 45 per cent of total EU CO₂ emissions.⁶⁷ Phase one ran from 2005 to 2007, while phase two runs from 2008-2012. The EU directive (*Directive One*) that enabled both these phases fell under the co-decision

⁶³ n 16 above, 33.

⁶⁴ See n 55 above.

⁶⁵ ibid, ch 2.

⁶⁶ ibid, 144; J.P. Voß, 'Innovation Processes in Governance: The Development of 'Emissions Trading' as a New Policy Instrument' (2008) 34(5) *Science and Public Policy* 329, 338; n 2 above. For example, carbon markets create a powerful and rapidly growing set of vested financial interests with strong incentives to lobby for the continuation of the ETS. Also, ring-fencing auctioning revenues for renewable energy projects create new political constituencies.

⁶⁷ Egenhofer, n 46 above, 453.

mechanism and entered into force on 13 October 2003.⁶⁸ It was legislated after the Council of Ministers (council) unanimously modified *Commission Directive One*, along with a very large majority in parliament.⁶⁹

Directive One was the result of rigorous commission consultations with stakeholders. The *Green Paper* provided the reference for this. In only a few cases did the commission express explicit preferences (see Table Six below in Appendix One). The commission's main preference, as expressed in the *Green Paper*, was for a centralized allocation process to provide a level playing field between countries. It also appears that the commission preferred auctioning as a method of EUA allocation. However, after critical responses from industry and Member States, such as Germany and the U.K., *Commission Directive One* proposed a free decentralized EUA allocation process which was incorporated into *Directive One*.⁷⁰

Phase three of the ETS (2013-2020) was triggered by *Directive One* Article 30 which required that the commission submit a report to parliament and council before extending the directive after the Kyoto Protocol expires (phase three: 2013-2020).⁷¹ The report assessed ETS performance and concluded the need for a review. This gave rise to a number of position papers and studies by stakeholders with further consultations within the European Climate Change Program (ECCP). The ECCP established a working group on the review and produced final reports incorporated into a commission communication.⁷² Membership of the working group was comprised of member states, industry, NGOs, academia, and research institutes. These consultations formed the basis of a second commission directive (*Commission Directive Two*). ⁷³ It was modified into *Directive Two*, which was adopted unanimously by the council with only 60 votes against and 29 abstentions in parliament. ⁷⁴ *Directive Two* entered into force on 5 June 2009. Table Two provides a legislative timeline.

⁶⁸ Parliament and Council Directive (EC) 2003/87, Establishing a Scheme for Greenhouse Gas Emission Allowance Trading Within the Community and Amending Council Directive 96/61/EC [2003] OJ L275/32.

⁶⁹ Commission (EC), 'Proposal for a Directive of the European Parliament and of the Council Establishing a Scheme for Greenhouse Gas Emission Allowance Trading with the Community and Amending Council Directive 91/61/EC' COM (2001) 581 final, 23 October 2001; Egenhofer, n 46 above, 454.

⁷⁰ Commission (EC), 'Greenhouse Gas Emissions Trading Within the European Union' (Green Paper) COM (2000) 87 final, 3 March 2000; Skjoerseth and Wettestad, n 5 above.

⁷¹ Commission (EC), 'Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee for the Regions: Building a Global Carbon Market –Report Pursuant to Article 30 of Directive 2003/87/EC' (Communication) COM (2006) 676 final, 13 November 2006.

⁷² ibid.

⁷³ Commission (EC), 'Proposal for a Directive of the European Parliament and of the Council Amending Directive 2003/87/EC so as to Improve and Extend the Greenhouse Gas Emission Allowance Trading System of the Community' (Communication) COM (2008) 16 final, 23 December 2008.

⁷⁴ Parliament and Council Directive (EC) 2009/29 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; Euractiv.com, 'Mixed Reactions as Parliament Approves EU Climate Deal' (18 December

Phase one	Green Paper (2000)
(2005-2007)	Green Paper Consultation (2000) ⁷⁵
	Commission Directive One (2001)
Phase two	Directive One (2003)
(2008-2012)	
Phase	Commission Report to Parliament and Council pursuant to Art. 30 of
three	Directive one (2006) ⁷⁶
(2013-2020)	Commission Report Consultations (2007) ⁷⁷
	Commission Directive Two (2008)
	Directive Two (2009)

Table Two: EU ETS legislative history

The main features of *Directive One* and *Directive Two* is briefly summarized as follows and are listed in Tables Six and Seven (Appendix One). *Directive One* proposes a decentralized system, where Member States play a critical role in deciding the amount and allocation of EUAs and the commission acts as watchdog to ensure compliance with agreed upon allocation criteria. The EU regional cap is therefore the sum of all national caps. EUAs are primarily handed out for free and the scope of sectors and GHGs covered is narrow. *Directive One* also allows credits to be imported from third countries through Kyoto's Clean Development Mechanism. *Directive Two*, on the other hand, is much more centralized. It has done away with national allocation plans and introduced more GHGs and sectors. Most importantly, it has adopted auctioning of EUAs as the general principle from which exceptions are made. Restrictive rules on importing credits from third countries are also incorporated.

Multiple purposes prevent labelling ETS phase one an overall regulatory failure. ETS phase one was a trial period with a goal to ensure European leadership promoting global cost-effective climate policy instruments.⁷⁸ This leadership component has been accomplished; however, a complete regulatory success would

²⁰⁰⁸⁾ at http://www.euractiv.com/en/climate-change/mixed-reactions-parliament-approves-eu-climate-deal/article-178163 (last visited 20 May 2010).

⁷⁵ DG Environment, 'Answers to Green Paper from National Governments, Business, Business Associations and NGOs' (2000) at http://ec.europa.eu/environment/docum/0087_en.htm (last visited May 20, 2010).

⁷⁶ Commission (EC), 'Building a Global Carbon Market – Report Pursuant to Article 30 of Directive 2003/87/EC' (Communication) COM (2006) 676 final, 13 November 2006.

⁷⁷ DG Environment, 'Emission Trading System (EU ETS) Stakeholders' Contributions for the Review Process of the EU ETS (publication subject to agreement)' (2007) at

http://ec.europa.eu/environment/climat/emission/list_review.htm (last visited 20 May 2010).

⁷⁸ A.D. Ellerman and P.L. Joskow 'The European Union's Emissions Trading System in Perspective' (2008) May *Policy* 1.

have resulted in the absence of both windfall profits and over-allocation.⁷⁹ This is significant because ETS phase three will not require 100 per cent EUA auctioning. The potential for regulatory failure still exists. As a result, many commentators propose a carbon tax as an alternative policy tool because it is less susceptible to rent-seeking and provides price stability.⁸⁰ The next section presents the evidence to identify winners and losers in both ETS phases.

EVIDENCE ANALYSED

The industries analysed are limited to large electricity generators and EIIs. It is clear from the literature review that generators on balance won in phase one, while EIIs won in phase three.⁸¹ This paper seeks to explain the reasons for this change.

The positions of individual firms and NGOS are also not analysed.⁸² Instead, the interests of large generators are reflected in EURELECTRIC's positions. The AEII represented 12 energy intensive industrial sectors (most EIIs) in phase three but not phase one. A full list is found in Appendix Two. The AEII was created after the relative failure of its members' lobbying and previous weaker umbrella groups' efforts (UNICE, IFIEC) in phase one.

The lobbying positions of EURELECTRIC and the AEII in phases one and three are represented in Tables Four and Five. Table Six compares the *Green Paper* to *Directive One*, while Table Seven compares *Commission Directive Two* to *Directive Two*. Table Four illustrates the divided positions of EII members during phase one. All tables are found in the appendices.

IDENTIFYING WINNERS AND LOSERS

Adding to the findings of Markussen and Svendsen, Tables Four, Five and Six indicate that phase one did not produce absolute winners despite some sectors faring better than others.⁸³ All industrial sectors wanted a voluntary system, which

⁷⁹ See ibid; windfall profits occurred because very little EUA auctioning occurred in ETS phases one and two, and allocations were based on the historical emissions of each installation. Energy generators incorporated the nominal prices of EUAs in their rates despite receiving them for free. Over-allocation resulted because of the decentralised allocation system which provided member states with incentives to protect national industries. Modest emissions targets, data constraints, and the political challenges of forecasting economic growth all contributed to the EUA price crash in 2006. For a detailed analysis of the EU ETS and European electricity markets see: A. D. Ellerman, F.J. Convery and C. De Perthius, *Pricing Carbon* (Cambridge: Cambridge University Press, 2010) 293-328.

⁸⁰ n 2 above; C. Hepburn, 'Carbon Taxes, Emissions Trading and Hybrid Schemes' in D. Helm and C. Hepburn (eds), *The Economics and Politics of Climate Change* (Oxford: Oxford University Press, 2009); D. Helm, 'The Case for Carbon Taxes' in S. Less (ed) *Greener, Cheaper* (London: Policy Exchange, 2010).

⁸¹ All interviews; Gullberg, n 58 above; Wettestad, n 5 above; EndsReport ^eTrading Down to a Low-Carbon Economy' (2009) 408 *Ends Report* 38.

⁸² BP and Shell were instrumental in institutionalising the ETS because they had significant experience with their own internal emissions trading schemes and provided great informational resources to the commission. The literature review above also mentions the significance of NGOs. See Braun, n 22 above, 13; J.B. Skjærseth and J. Wettestad, *EU Emissions Trading: Initiation, Decision-Making and Implementation* (Aldershot.: Ashgate, 2008) 184.

⁸³ Markussen and Svendsen, n 6 above, 253; Skjærseth and Wettestad, ibid.

Directive One rejected. Only chemical and aluminium industries successfully lobbied for exclusion. They claimed the ETS would affect their ability to compete internationally. Free grandfathered EUAs are an example of cross-sectoral success particularly when compared to auctioning. However, the divisions of AEII members on this issue are glaring. It may explain their inability to oppose allocation and banking decisions left to member states which created the competitiveness problems discussed above in the first section of Part Three⁸⁴ Generators on the other hand favoured national allocations because it allowed consideration (ie lobbying) of national differences in reduction potential, despite their numerous cheap options for CO₂ reductions compared to EIIs.⁸⁵ Finally, by avoiding auctioning, generators reaped windfall profits. The fact that EIIs did not identify this issue, promote auctioning for generators, or obtain compensation for higher energy prices is further evidence that generators fared better than most EIIs in phase one. Markussen and Svendsen attribute this success to generators being the largest and most important sector for implementation.⁸⁶

Like phase one, phase three did not produce absolute winners; however, Table Seven demonstrates EURELECTRIC did not receive the lions' share of concessions. It gained only one important victory in *Directive Two* – that of optional derogations for generators in Poland and the Baltic. This is limited to a high percentage of fossil fuel generation and interconnectivity with Russian energy alternatives (see Article 10(c) in Table Seven). Despite the apparent coup, it is not attributable to EURELECTRIC's position. Instead it reflects the unique characteristics of these domestic energy markets and the symbolic goal of political unanimity at the council for Poznan Conference of the Parties (COP) 14.⁸⁷ It is a mere 'fig leaf' according to one EU insider because the qualifying threshold for derogations is very high.⁸⁸

AEIIs on the other hand, received every concession except one – that of regulating electricity costs (see Table Seven). However, *Directive Two*, Article 10(a) allows member states to compensate industries for GHG cost pass-through, with admittedly very strict benchmarks. This is nevertheless an improvement on *Commission Proposal Two*, which omitted the issue. The AEIIs also improved *Commission Proposal Two* by increasing the number of small installations excluded

⁸⁴ P.D.R. Gonzalez, 'Implementing the EU Emissions Trading Directive in Spain: A Comparative Study of Corporate Concerns and Strategies in Different Industrial Sectors' in R. Antes, B. Hansjurgens, and P. Letmathe (eds), *Emissions Trading and Business* (New York: Physica-Verlag, 2007) 311; Skjærseth and Wettestad, ibid, 116; EndsEurope, 'EU Climate Policy Package Delayed' (17 October 2001) at http://www.endseurope.com/5841?referrer=search (last visited May 20, 2010).

⁸⁵ S. Varming, P. B. Eriksen, et al, "Tradable CO2 Permits in Danish and European Energy Policy' (Riso-R-1184(EN), Roskilde: Riso National Laboratory, 2000); n 78 above, 32.

⁸⁶ n 6 above, 253.

⁸⁷ Commission interviews; EndsReport, 'Compromise EU Climate Package Hurried Through Brussels Summit' (2008) 407 *Ends Report* 4, 4.

⁸⁸ Commission interviews.

from the ETS and adding a qualitative criterion to the methodology for identifying industries at risk of carbon leakage.⁸⁹

Wettestad and Gullberg both argue that when analysed through the lens of industry differentiation, it is clear that EURELECTRIC won in phase one, and AEIIs won in phase three.⁹⁰ By differentiation, Wettestad means electricity generators can pass-on real or nominal costs of EUAs without risk of carbon leakage or displacement, while some EIIs cannot because they are exposed to global competition.⁹¹

The next and final section will attempt to provide a theoretical framework for explaining this change in winners and losers between phases one and three using Wilson's Typology.

PART FOUR: CASE STUDY ANALYSIS

THE EXPLANATORY FORCE OF WILSON'S TYPOLOGY

This paper seeks to understand: why different EUA allocations rules were adopted in ETS phases one and three. As addressed in Part Two above, most private interest theories struggle to provide an explanation of this shift because actor constellations and their interests have not significantly changed. Yet the ETS case study identified generators as lobbying winners in phase one, while EIIs won in phase three. Wilson's Typology provides an analytical lens to explain this puzzle which is more informative to other jurisdictions than existing scholarship based on EU policymaking theories. This is because Wilson's insight, that the distribution of regulatory costs and benefits explain regulatory outcomes, provides a framework for understanding the dynamics of ET regulation beyond the EU. The hypothesis defended here is that a shift from client to interest group politics from phase one to phase three explains this change. In phase one, generators benefited more than EIIs, with higher overall levels of rent-seeking which resulted in an unstable equilibrium characteristic of client politics. In phase three, EIIs only succeeded in gaining slightly more concessions, with lower overall rent-seeking levels and a stable stalemate indicative of interest group politics. While it is rarely the case that empirical realities match exact abstract typologies, the following section will

⁸⁹ Commission interviews; Directive Two, n 74 above, Art 10(a), (c) and Annex II. Carbon leakage is defined in n 72 above as: 'relocating of GHG activities from the EU to third countries, thereby increasing global emissions.' Some Baltic generators are exposed to carbon leakage because of their interconnectivity and competition with Russian energy suppliers. They therefore cannot pass-on nominal or real EUA costs (interview); see also: EndsEurope, 'Baltic States to Link up with Wider EU Grid' (18 June 2009) at http://www.endseurope.com/21597?referrer=search (last visited 20 May 2010).

⁹⁰ n 5 above; n 58 above.

⁹¹ Industry interviews; Grabovsky, n 42 above, 351; J.D.C.D. Larragan, "Too Much Harmonisation? An Analysis of the Commission's Proposal to Amend the EU ETS from the Perspective of Legal Principles' in M. Faure and M. Peeters (eds), *Climate Change and European Emissions' Trading: Lessons from Theory and Practice* (Cheltenham: Edward Elgar, 2008) 74.

characterize phase one as client politics by analyzing the reasons for why interest group politics did not emerge immediately when it had the potential to do so. This will be done by proposing a broader understanding of regulatory costs and benefits to include: transaction, informational, agency and collective action costs and benefits.

On balance, evidence for phase one fits with Wilson's description of client Small, well-organised generators successfully secured free EUAs and politics. passed-on their nominal costs to diffused domestic consumers, generating significant windfall profits. However, two facts do not neatly fit this model: (1) allocation rules were transparently devised; and (2) powerful EIIs could have ensured the emergence of interest group politics. Wilson envisaged client politics as one of 'backstairs intrigue, quiet lobbying, and quick passage with a minimum public discussion'.⁹² This was not the case for the ETS legislative process. Also, public interest arguments about climate change mitigation are the reason for these directives, which Wilson believed would require 'more elaborate justificationsand thereby mobilize a more extensive coalition^{2,93} The other three politics envisage greater transparency or at least some public knowledge of the rents being lobbied for. This is because majoritarian politics require public support for adoption, while entrepreneurial politics require policy entrepreneurs to mobilise latent public sentiment. Interest group politics expect a lukewarm public whose voices are heard in 'weak or general terms'.94 Consequently, while the case study evidence prevents any serious characterisation of phase one as either majoritarian or entrepreneurial politics, it does present the following question: why did interest group politics not emerge in the first place?

As discussed in Part Two, Cook has characterised phase one as interest group politics.⁹⁵ He concludes that evidence of interest group competition fits Wilson's prediction because something in the 'final legislation please[d] each affected party'.⁹⁶ However, resulting windfall profits for generators do not fit with lower rent-seeking expectations of interest group politics, nor does the fact that eventual ET regulatory costs are borne by all carbon-intensive consumers (not just EIIs as the concentrated costs of interest group politics suggests). Rather, these facts fit with client politics. Also, if interest group politics emerged in phase one, why did the allocation rules change in phase three? This form of politics expects only marginal changes due to fierce competition.

There are at least three important factors that help explain why interest group politics did not emerge in phase one: (1) the windfall profit mechanism was not widely understood or made transparent by generators; (2) EIIs were divided and not well-organised; and (3) the legislative process was rushed with steep learning curves for most involved. Each of these factors will be discussed in turn.

⁹² n 3 above, 369.

⁹³ ibid, 370.

⁹⁴ ibid, 368.

⁹⁵ n 5 above, 16-17.

⁹⁶ n 3 above, 368.

Ellerman and Joskow argue that 'the effects of the ETS on wholesale and retail power prices and generator profitability when the sector was being liberalized were not widely understood'.⁹⁷ This is supported by the fact that no reference to potential windfall profits exists in the very comprehensive *Green Paper*.⁹⁸ On the other hand, greater profitability for low-carbon generators (nuclear, hydro) in liberalised markets was expected because wholesale market prices reflect EUA values. However, these installations received few or no permits.⁹⁹

In addition, not everyone at the commission understood the risk of windfall profits. The DG Enterprise and Industry, whose stakeholders are the EIIs, remained unaware of this risk until late in the negotiation process. Only through piecing together evidence about price interaction with marginal power plants did EIIs become aware of windfall profits risks.¹⁰⁰ Individual interviews suggest that in hindsight, 'the commission was naïve to not recognize why EURELECTRIC supported the ETS'.¹⁰¹ On the other hand, the DG Environment was 'probably aware' as an official there argues that:

windfall profits were understood from a textbook perspective only. The commission did not understand how it worked in practice. For example, which firms are price makers or takers and how it would equalize across sectors or how liberalization would put a downward pressure on this phenomenon [...] competitiveness was the most important issue for lobbyists in phase one, not windfall profits.¹⁰²

The DG Energy and Transport was most aware of this risk, because their stakeholders are the generators, but all interviewees persist that requiring higher auctioning levels for generators 'was part of the compromise required for implementation'.¹⁰³

Generators likely understood they would benefit from windfall profits. EURELECTRIC carried out ET simulations in 1999 and 2000 where its members presumably learned about windfall profits.¹⁰⁴ An official at EDF confirms this and acknowledges that generators anticipated windfall profits.¹⁰⁵ However, another official at the same company argues that 'free allocations were introduced primarily to minimize the competitiveness impacts on coal rather than nuclear generators'.¹⁰⁶

⁹⁷ n 78 above, 27.

⁹⁸ n 70 above, s 7.3.

⁹⁹ Egenhofer, n 46 above, 457.¹⁰⁰ Commission interviews.

¹⁰¹ ibid.

¹⁰² ibid.

¹⁰³ ibid.

¹⁰⁴ Braun, n 22 above, 13.

¹⁰⁵ Industry interview.

¹⁰⁶ ibid.

EIIs were not well-organised in phase one. Markussen and Svendsen draw this conclusion as do Engenhofer and Wettestad.¹⁰⁷ Wettestad argues that 'they woke up and got their ETS act together' after phase one, becoming more knowledgeable, united and improving their standing within the commission.¹⁰⁸ This is evidenced by their role in establishing and dominating the High Level Group¹⁰⁹, their active participation in the ECCP¹¹⁰ meetings, and their multitargeted lobbying drive in phase three.¹¹¹ All three activities ensured the impossibility of ignoring windfall profits and carbon leakage. In contrast, during phase one ECCP meetings, EIIs were uncoordinated and partly disagreed amongst themselves. One observer likened it to 'having slept in class'.¹¹² This conclusion is also strengthened by the inability of EII's to speak with a single voice in Tables Four and Five and the frequency of AEII press releases after *Directive One* was legislated (more than 10 were issued after January 2004 and none before that date).¹¹³

ETS phase one was a quick policy-making process guided by the principle of implementability where groups with knowledge and experience with ET had stronger lobbying power. After the withdrawal of America from the Kyoto Protocol in 2001, the commission embarked on a learning, consultation, and implementation sprint to establish the ETS in four years. This was part of its strategy to replace America as climate change policy leader.¹¹⁴ Phase one ECCP meetings were dominated by generators because they provided the commission with information on how ET worked.¹¹⁵ Officials interviewed at the commission all posit that phase one was a trial period; the most important goal was to get things

¹⁰⁷ C. Egenhofer, 'Anxiety Prevails as Windfall Benefits Power Companies' (European Voice, 2005) at http://www.europeanvoice.com/article/imported/anxiety-prevails-as-windfall-benefits-power-companies/51479.aspx (last visited 20 May 2010); n 6 above, 255; n 5 above, 311.

companies/514/9.aspx (last visited 20 May 2010); n 6 above, 255; n 5 above, 511.

¹⁰⁸ Wettestad, n 5 above; industry interviews. For example, the EEF commissioned an independent study on the effects of carbon leakage for the British steel industry.

¹⁰⁹ The High Level Group on Competitiveness, Energy and the Environment was established in 2006 as a follow-up to the October 2005 communication on Industrial Policy, see Commission (EC), Implementing the Community Lisbon Programme: A Policy Framework to Strengthen EU Manufacturing-Towards a More Integrated Approach for Industrial Policy' (Communication) COM (2005) 474 final, 5 October 2005. It consists of member state representatives and various bodies representing industrial energy producers and consumers, and ENGOs. Wettestad, n 5 above, 314, and Gullberg, n 58 above, 3, both argue the group was dominated by energy intensive industries.

¹¹⁰ This group was the primary institution for stakeholder input in ETS phases one and three. In phase three, EIIs outnumbered generators for ECCP membership by three to one; they also became important sources of information to the commission, particularly regarding the impact of electricity and carbon prices on competitiveness and how to calculate firms at significant risk of carbon leakage. See Wettestad, ibid, 311-313.

¹¹¹ Corporate Europe Observatory, 'Watering Down the EU's Climate Policies a Multi-Pronged Corporate Attack' (December 2008) at http://archive.corporateeurope.org/docs/climatelobby2008.pdf (last visited 20 May 2010); Wettestad, n 5 above, 317; EndsReport, n 81 above.

¹¹² Wettestad, ibid, 315.

¹¹³ See press releases in Appendix Two below.

¹¹⁴ A.C. Christiansen and J. Wettestad, 'The EU as Frontrunner on Greenhouse Gas Emissions Trading: How Did it Happen and Will the EU Succeed?' (2003) 3(1) *Climate Policy* 3, 4; J. Wettestad, 'The Making of the 2003 EU Emissions Trading Directive: An Ultra-Quick Process Due to Entrepreneurial Proficiency' (2005) 5(1) *Global Environmental Politics* 1, 17-19.

¹¹⁵ Braun, n 22 above, 12.

started because it triggers a learning process and institutionalises the regime. Avoiding the American fate, where business blocked mandatory carbon regulation, was high on policymakers' minds. ¹¹⁶ Confronting lobby groups on allocation methods risked closing the commission's implementation window. It also would have detracted from the herculean tasks of technical forecasting and data collection necessary for market creation and to negotiate National Allocation Plans.¹¹⁷

The core of Wilson's argument is that the distribution of costs and benefits of regulation explains levels of rent-seeking. While ETS phase one had all the characteristics of being an example of an interest group battle, it appears from this case study that costs and benefits do not operate in a vacuum. They need to be transparently understood, and interest groups also need time to mobilise. In this sense, there are informational costs and transaction costs to collective action that provide certain interest groups with lobbying advantages. These costs can be significant and explain why Wilson's Typology, in its simplest form, does not always match the empirical reality. Nevertheless, this insight fits with Wilson's typology if regulatory costs and benefits are conceived of more broadly to include: transaction, informational, agency, and collective action costs and collective action problems which characterize political markets (particularly for disparate consumers) also need to be considered for the *prima facie* wealthy, sophisticated and powerful.

In summary, ETS phase one evidenced very strong characteristics of client politics, particularly when Wilson's conception of regulatory costs and benefits are viewed broadly to understand the dynamics of collective action, transaction and informational costs that gave generators a lobbying and rent-seeking advantage over EIIs. The next section will make the case that phase three corresponds with Wilson's description of interest group politics.

EXPLAINING SHIFTS: CAN REGULATORY FAILURES BE CORRECTED?

ETS phase three can be characterised as interest group politics because the final legislation pleased each affected party and resulted from competition between active and knowledgeable interest groups that did not face asymmetries in collective action and information costs.¹¹⁸ For instance, EURELECTRIC remained very active but understood windfall profits would end after phase two although it did not endorse auctioning. Instead, its achieved message was that other sectors should not unduly benefit from free allocations.¹¹⁹ As in phase one, the process was transparent, but this time public opinion clearly sided with EIIs (who were

¹¹⁶ Layzner, n 46 above, 105.

¹¹⁷ M. Grubb and F. Ferrario, 'False Confidences: Forecasting Errors and Emission Caps in CO2 Trading Systems' (2006) 6 *Climate Policy* 495, 495; n 78 above, 7-11.

¹¹⁸ Industry interview.

¹¹⁹ Commission and industry interviews.

better organized, on message and well positioned to influence the commission) because global competition risks and public outrage over higher energy prices, with corresponding profits, received headlines.¹²⁰ The level of overall rent-seeking in phase three matches interest group politics expectations: auctioning removes windfall profits for generators, and the exceptions for facilities in Eastern Europe expire in 2020 and use strict benchmarks, while the free-allocations for EIIs also characterized by restrictive benchmarks and review clauses.

At present, the impacts of ET policies are understood by broad constituencies, and the first signs of a major shift to entrepreneurial or majoritarian politics are appearing. The allocation rules are moving towards optimal policy prescriptions which disperse both costs and benefits of regulation by requiring 100 per cent auctioning for all sectors by 2027 (Wilson's majoritarian politics). As such, all consumers pay the final costs, and no industry unduly benefits. Nevertheless, this majoritarian equilibrium is taking an entrepreneurial route because, depending on which EIIs qualify for free EUAs in phase three and beyond, some may bear the complete cost of regulation while all dispersed consumers may benefit from lower emissions. The ETS will eventually become majoritarian. However, this prospect is likely longer-term because full carbon-cost internalisation (with costs born fully by carbon-intensive consumers) is only expected if and when carbon targets tighten through 2020 and beyond. Also, future generations (not current cost-bearers) will benefit from climate stability if targets are overshot.¹²¹

Other than the greater organisation, cohesion, and resources of EIIs, ETS case study facts in phase three match the theoretical explanations for shifts away from client politics surveyed in the literature review (see Part Two above). For example, exogenous shifts in the form of global competition raised the profile of carbon leakage facing EIIs.¹²² Indeed, Wettestad argues that windfall profits on their own did not justify different allocation rules between industries.¹²³ Rather, it was the combination with fears of carbon leakage that facilitated regulatory change. In addition, the importance of auctioning as a policy instrument to remove windfall profits may have operated as a 'force of idea'.¹²⁴ Elements of client politics' tendency for self-destruction are also visible because high-profile windfall profits and resulting higher electricity prices were bound to create a public backlash.

The ETS case study matches Patashnick's three conditions for policy reform. The first condition, that policy entrepreneurs lower information costs, was present in the form of NGOS, EIIs, and the media, who explained the link between prices and windfall profits; while consumers also painfully felt the impact of higher

¹²⁰ Wettestad, n 5 above, 316; Business and Enterprise Committee, 'Energy Prices, Fuel Poverty and Ofgem' HC (2007-08) 293-I, at

http://www.publications.parliament.uk/pa/cm200708/cmselect/cmberr/293/293i.pdf (last visited 20 May 2010).

¹²¹ n 1 above, 26.

¹²² eg AEII press releases in Appendix Two below.

¹²³ n 5 above, 317.

¹²⁴ Commission (EC), 'Question and Answers on the Commission's Proposal to Revise the EU Emissions Trading Scheme' (Memorandum) MEMO/08/35, 23 January 2008; n 78 above, 30; n 24 above, 5.

electricity prices.¹²⁵ The second condition, procedural strategies to weaken vested interests, existed as new working groups were created with greater weight given to EIIs. Finally, the third condition of tactical concessions is seen in the commission's strategy to neutralise ET opposition. In phase one, it secured the support of the largest emitting group, through free permit allocations. In phase three, it developed formulas to allocate free EUAs to EIIs and to compensate them for higher energy costs. Generators may have also adopted a lose-to-win approach by accepting auctioning because they will pass-on EUA costs to consumers and can potentially price the lost profits (from no windfall profits).¹²⁶ This strategy could also be motivated by fear of future profit regulation.¹²⁷ The ETS has clearly disrupted traditional coalitional partners and stimulated the emergence of new vested interests, for example: the EIIs that benefit from free permits, the generators that have invested heavily in abatement and can bank excess permits between phases, the specialised businesses that provide carbon market financial services and the political constituencies created by ring-fencing auctioning revenues for the green economy and adaptation measures.

In summary, the ETS case study is a rich crucible for developing and understanding the dynamics of Wilson's typology. Not only do the facts demonstrate a shift from client to interest group politics and the potential for further shifts towards optimal policy prescriptions, but they also highlight the importance of informational asymmetry and collective action problems that exist in real world of regulatory politics and which Wilson's Typology, in its classic form, overlooks. This case study also demonstrates the importance of agency by political actors to precipitate policy reform that disrupts the status quo. It therefore helps breathe life into Wilson's typology by revealing the dynamism on both the interest group and government side of the lobbying game.. Many of these insights would be lost if the shift from phase one to phase three were to be simply dismissed as attributable to the fact that windfall profits were not widely understood and that if they had, interest group politics would have surely emerged in phase one (because EIIs would have mobilized earlier); an argument impossible to refute because of its counterfactual premise. However, it is precisely because ET will be a new untested policy in many jurisdictions that understanding these early stage political dynamics is so critical. The next section will consider the broader theoretical implications of these insights. 128

THEORETICAL IMPLICATIONS

¹²⁵ See AEII press releases in Appendix Two below for evidence of their policy entrepreneurship; Ellerman, n 79 above, 293, 328.

¹²⁶ Commission interviews.

¹²⁷ Wettestad, n 5 above.

¹²⁸ J.D. Fearon, 'Counterfactuals and Hypothesis Testing in Political Science' (1991) 43(2) *World Politics* 169.

This case study provides evidence for and adds to the sparse literature on theoretical explanations for shifts in Wilson's Typology, particularly shifts from client to interest group via entrepreneurial and finally majoritarian politics. It also demonstrates an interesting narrative that is testable against other policy reform case studies. That is, when new transparent public interest policies are proposed with interest group politics potential but majoritarian policy prescriptions, and where informational asymmetry (expertise) exists between regulated groups (or one group is more instrumental for policy institutionalisation), client politics is likely to emerge. This is likely to occur even if all groups appear to benefit equally before the policy is implemented. However, once one group realises that others have benefited more, the self-destruction process of client politics triggers a counter-mobilisation by losers who, through the competition mechanism that interest group politics predicts is very strong, will overcome these asymmetries relatively quickly because of the high level of sophistication, power and wealth of the major players. Demands for rents in the second round of rule-making will also be met by greater resistance. This is because the reform is embedded by having already upset existing coalitional patterns and created new vested interests that understand the potential for further rent-seeking. Therefore, not only is there a return to interest group politics, but also strong indications of a tendency towards entrepreneurial or majoritarian politics as the rules begin to resemble optimal policy prescriptions. Table Three illustrates this narrative:

Table Three: The direction and prospects of optimal policies in Wilson's typology¹²⁹

Benefits of	Costs of Regulation	
Regulation	Concentrated	Dispersed
Concentrated	Interest Group Politics	Client Politics
Dispersed	Entrepreneurial Politics (General Interest)	Majoritarian Politics (General Interest)

¹²⁹ Source: Adapted from Hood, n 16 above, 25.

WHAT PROSPECTS FOR PHASE THREE?

It is too early to predict a self-correction from past disorders. The above discussion assumes less regulatory failures in phase three; specifically that recipients of free permits will not accrue windfall profits. However, existing literature that suggests carbon leakage risks are overstated is a serious cause for concern.¹³⁰ A thorough analysis of this issue is beyond the scope of this paper, but it is worth briefly outlining the debate here. For example, a report by Oxford Economics predicts that moving to 100 per cent auctioning with a carbon price of €25/ton will cut EU GDP by 0.5 per cent in the medium to long term.¹³¹ A more moderate analysis by the Carbon Trust concludes that only cement, steel, and aluminium sectors are exposed.132 Others such as the IPCC, Wooders, et al, and Mattoo, et al, believe that carbon leakage will only have minimal effects.¹³³ For example, Barker, Junankar, et al believe the impacts will be similar to variations in exchange rates.134 Indeed Reinaud found no ETS impact on carbon leakage, and a recent report by Climate Strategies warns of future regulatory failures with free allocations to EIIs.135 Other risks include the economic and political fallout of border taxes on the carbon footprints of imports to prevent carbon leakage.¹³⁶

Quantifying carbon leakage is challenging, particularly because member states will push for protecting domestic industry, and evidence is only certain once displacement occurs.¹³⁷ This is confirmed by the final list of exposed industries, which contains more than conservative prescriptions recommend.¹³⁸ Therefore, the risk of windfall profits in phase three has not disappeared; indeed it may have increased since the failure to reach a robust international agreement at

¹³⁰ EndsReport, 'What Price the Cost of Carbon?' (2007) 394 Ends Report 32.

¹³¹ Oxford Economics, Report on Modelling the Macroeconomic Competitiveness Impacts of EU Climate Change Policy (London: Oxford Economics, 2007) 4.

¹³² Carbon Trust, EU ETS Impacts on Profitability and Trade: A Sector by Sector Analysis (London: Carbon Trust, 2007) 1; industry interview.

¹³³ IPCC, 'Summary for Policymakers' in B. Metz, O.R. Davidson, P.R. Bosch, R. Dave, and L.A. Meyer (eds), *Climate Change 2007: Mitigation. Contribution of Working Group III to the Fourth Assessment Report of the Intergovernmental Panel on Climate Change* (Cambridge: Cambridge University Press, 2007) 12; P. Wooders, A. Cosbey, et al, *Border Carbon Adjustment and Free Allowances: Responding to Competitiveness and Leakage Concerns* (Paris: OECD, 2009); A. Mattoo, A. Subramanian, et al, *Reconciling Climate Change and Trade Policy* (Washington: World Bank, 2009).

¹³⁴ T. Barker, S. Junankar, et al, 'Carbon Leakage from Unilateral Environmental Tax Reforms in Europe, 1995–2005' (2007) 35 *Energy Policy* 6281, 6291.

¹³⁵ J. Reinaud, 'Issues Behind Competitiveness and Carbon Leakage: Focus on Heavy Industry' (IEA Information Paper, Paris: International Energy Association, 2008) 2; S. Droege, 'Tackling Leakage in a World of Unequal Carbon Prices' (Climate Strategies Working Paper, Cambridge, UK: Climate Strategies, 2009) 6; M. Grubb and S. Droege 'A Carbon Giveaway Europe Cannot Afford' (14 June 2010) *Financial Times.*

¹³⁶ Economist, 'Green with Envy: The Tension Between Free Trade and Capping Emissions' (19 March 2009) *The Economist*, A. Gurría, 'Carbon Has No Place in Global Trade Rules' (5 November 2009) *Financial Times.*

¹³⁷ Industry interview.

¹³⁸ Commission (EC), 'Decision Determining, Pursuant to Directive 2003/87/EC of the European Parliament and of the Council, a List of Sectors and Subsectors Which are Deemed to be Exposed to a Significant Risk of Carbon Leakage' (Decision) 2010/2/EU, 24 December 2009.

Copenhagen did not trigger the review clause (of the list) in Article 10(a) of *Directive Two*.¹³⁹ The debate over windfall profits and carbon leakage is likely to intensify in the literature and until an international agreement is concluded, if ever.¹⁴⁰ A senior official at the commission recognises that carbon leakage is not 'a serious problem, but the process was highly politicized and lobbied. The best can be the enemy of the good and sufficient safeguards like strict benchmarking exist to minimize problems'. Such pragmatism and optimism in politics is normal. However, there is evidence that the benchmarking process currently underway is also subject to gaming.¹⁴¹ This is a shame, because the excesses of small powerful groups at the expense of wider populations may lead to counter-excess – the potential abandonment of a useful regulatory tool (ET) for climate change mitigation, in favour of less efficient command and control regulation.

POLICY IMPLICATIONS

The ETS case study provides further evidence that it is possible to escape the iron clutches of client politics. It instructs policymakers to potential ET regulatory failures, particularly in relation to free grandfathered allocations.¹⁴² It also provides short and long-term strategies for ET institutionalisation and demonstrates the prospects for equilibriums at optimal policy prescriptions. However, as already noted, if phase three suffers from regulatory failures, the prospects for a rising phoenix may be delayed.

This paper highlights important considerations for American and Australian policymakers who are currently negotiating climate change mitigation policies. Proposals for ET schemes in these countries have required only 15 per cent and \sim 50 per cent auctioning respectively.¹⁴³ In light of the European experience, the American figure may seem very low, but it reflects the necessary payoffs needed for long-term institutionalisation and policy learning.¹⁴⁴ If the ETS case study is any indication, a move towards general interest equilibriums is possible in America and Australia if policies can clear the first legislative hurdle of institutionalisation: legislation, which at this stage in both countries is uncertain. Indeed America

¹³⁹ M. Grubb, 'Tackling Carbon Leakage: Presentation to Briefing at European Parliament' (Brussels: European Parliament, 2009).

¹⁴⁰ COP-15 coincided with the date for final list adoption of industries at risk of carbon leakage by the commission in December 2009. Article 24 of the Commission Decision triggers a review of the final list if an international agreement is concluded. See n 138 above.

¹⁴¹ Industry interview; CAN Europe, Position paper on Benchmarking and Allocation Rules in Phase III of the EU Emissions Trading System' (Brussels: Climate Action Network Europe, February 2010).

¹⁴² J. Wettestad, 'Interaction Between EU Carbon Trading and the International Climate Regime: Synergies and Learning' (2009) 9(4) *International Environmental Agreements: Politics, Law and Economics* 393, 406.

¹⁴³ Resources For the Future, 'A Side-by-Side Look at House and Senate Climate Bills' (5 October 2009) at http://www.rff.org/wv/archive/2009/10/05/comparing-house-and-senate-climate-bills.aspx (last visited 20 May 2010); Reuters.com, 'FACTBOX: Australia-EU Carbon Trade Differences' (12 August 2009) at http://www.reuters.com/article/idUSTRE57C0D420090813 (last visited 20 May 2010).

¹⁴⁴ Commission interviews; Patashnik, n 55 above, ch 2; B. Lomborg, 'The Climate-Industrial Complex: Some Businesses See Nothing but Profits in the Green Movement' (22 May 2009) *The Wall Street Journal.*

might abandon economy-wide ET entirely in favour of a sectoral approach or no approach at all.¹⁴⁵

Finally, the analysis also contributes to the debate about regulatory failures and how, from a theoretical perspective, they are manageable by careful selection of MBIS.¹⁴⁶ The rise of ET was a revolution in European environmental governance.¹⁴⁷ This upheaval has spread because cost-effective climate mitigation

¹⁴⁵ US Congress-House. American Clean Energy and Security Act of 2009. H.R. 2454. 111th Cong., 1st sess. (26 June 2009) 1-1428 at

http://energycommerce.house.gov/Press_111/20090701/hr2454_house.pdf (last visited 20 May 2010); n 33 above; Parliament of the Commonwealth of Australia, House of Representatives. Carbon Pollution Reduction Bill 2010 (2 February 2010) 1-559 at

http://parlinfo.aph.gov.au/parlInfo/search/display/display.w3p;query=Id%3A%22legislation%2Fbillho me%2Fr4281%22 (last visited 20 May 2010). (Also known as the Waxman-Markey Bill).

The Waxman-Markey Bill was passed by the American House of Representatives on June 26, 2009. The original proposal was 600 pages while the final proposal is 1400 pages. It is the product of severe porkbarrelling. The Kerry-Boxer Bill which followed and was before the US Senate in late 2009 provided some improvements (Resources for the Future, n 143 above). In May 2010, Senators Kerry and Lieberman introduced a 987-page bill (n 33 above) that takes a sectoral approach to climate mitigation rather than the economy-wide cap and trade will introduced in the House of Representatives. Cap and trade will apply to electric utilities primarily. However, with the loss of the Democratic Party's super-majority in the Senate and oil spill in the Gulf of Mexico, the passage of this bill by the Senate is highly uncertain. In July 2010, the American Senate and House of Representatives introduced legislation limited to promoting energy efficiency and changing the liability architecture for offshore oil spills. Climate change legislation will have to wait until after the 2011 November mid-term elections, see Economist, 'Capped: The Senate's retreat from cap and trade might, one day, lead to a carbon tax, but for now leaves a dreadful mess" (29 July 2010) *The Economist*;

A similar pattern has emerged in Australia with their ET legislation: the Carbon Pollution Reduction Scheme (n 143 above). The Green Paper proposals called for auctioning the majority of permits at the outset and eventually moving to 100% of auctioning, see Department of Climate Change, 'Carbon Pollution Reduction Scheme Green Paper' (Canberra: Commonwealth of Australia, July 2008) at http://www.climatechange.gov.au/~/media/publications/green-paper/greenpaper.ashx (last visited 20 May 2010).

However, various consultations and reiterations of the CPRS legislation have led to very generous provisions made for either free or deferred payments to emissions-intensive-trade exposed industries, the coal and electricity sectors. The actual details of the auctioning process have not been finalised. These generous provisions for polluters partly explain why the CPRS has yet to clear the legislative hurdle: see C. Johnson, 'The CPRS - A Failure of the Left Not Just the Right' (Sydney: OnlineOpinion.com, 2010) at http://www.onlineopinion.com.au/view.asp?article=10172 (last visited 20 May 2010); J.C.V. Pezzey, S. Mazouz, and F. Jotzo, 'The Logic of Collective Action and Australia's Climate Policy' (2010) 54 *The Australian Journal of Agricultural and Resource Economics* 185, 191. See, also, Department of Climate Change, 'Summary Key Changes to the Carbon Pollution Reduction Scheme Legislation' (Canberra: Commonwealth of Australian Department of Climate Change, 'Details of Proposed CPRS Changes' (Canberra: Commonwealth of Australia, 24 November 2009) for the changes made after negotiations with opposition parties.

The Australian Senate voted down the CPRS Bill on December 2, 2009. The legislation was introduced in the Australian Parliament for a third time on 2 February 2010. In April 2010, the Australian government decided to delay the implementation of the CPRS until after 2012 when the Kyoto Protocol expires. The August 2010 Australian Commonwealth elections which delivered a hung parliament make passage of the unpopular CPRS Bill more uncertain. See the Australian Department of Climate Change and Energy Efficiency website for up to date information: http://www.climatechange.gov.au/en/government/initiatives/cprs/cprs-progress.aspx.

¹⁴⁶ Helm, n 7 above, 180.

¹⁴⁷ CEPS, 'Greenhouse Gas Emissions Trading in Europe: Conditions for Environmental Credibility and Economic Efficiency' (Task Force Report no 43, Brussels: Centre for European Policy Studies, 2002) 6.

tools are needed by all countries.¹⁴⁸ Students of history understand that revolutions almost always fail to deliver their promises. Many optimists have become ET sceptics because its exposure to rent-seeking may outweigh any benefits.¹⁴⁹ In light of the result at Copenhagen the prospects for a global carbon market are quite bleak, and there have been renewed calls for a carbon tax instead, or a hybrid approach (with a carbon tax floor for EUA prices), in part because of the high levels of rent-seeking being reported in America and elsewhere.¹⁵⁰ However, the ETS is displaying the green shoots of a restorative order after a policy revolution. With rent-seeking potentially resolvable in the medium term, academic ink can instead address the major issue of governance and enforceability, a more serious 'Achilles Heel', if ET can emerge at a global scale.¹⁵¹ This paper has therefore shown that the most important policy lesson to be learned from the ETS is not only how to reduce regulatory failures, but how to lock-in climate policy.

CONCLUSION

This paper sought to explain the change in EUA allocation rules between ETS phases one and three. It has shown that private interest theories, in addition to their multiple weaknesses, struggle to explain policy change without major shifts in actors' interests, particularly at client politics equilibriums. This is why the hypothesis approached the question through a different analytical lens – Wilson's Typology – a more universal framework that helps explain policy change beyond the EU. The argument defended was that the shift from client politics to interest group politics best explains the change in allocation rules between phases one and three.

The ETS case study found evidence of client politics in phase one. This is because the failure of EIIs at differentiation and the resulting windfall profits of generators match Wilson's expectations of higher rent-seeking. Moreover, the change in phase three allocation rules — industry differentiation, use of benchmarking, higher levels of auctioning, and tight exceptions for EIIs — could result in lower rent-seeking, which is consistent with interest group politics expectations. Empirically, this shift can be explained by the informational and

¹⁵⁰ Helm, ibid; Hepburn, n 80 above; R. Falkner, 'Getting a Deal on Climate Change: Obama's Flexible Multilateralism' (2010) January *LSE Ideas* 37; Financial Times, 'A Changing Corporate Climate' (19 February 2010) *Financial Times*. N. Robins, R. Clover, et al, 'Flashnote: The Ugly Duckling' (London: HSBC, 2010); Ends Europe, 'EU Must Retain Faith in Emissions Trading – BP' (25 January 2010) at

¹⁴⁸ n 1 above, 107.

¹⁴⁹ n 2 above, 273; D. Helm, 'Government failure, rent-seeking, and capture: the design of climate change policy' (2010) 26(2) Oxford Review of Economic Policy 182-196.

http://www.endseurope.com/23143 (last visited 20 May 2010); PWC, 'Carbon Taxes vs Carbon Trading: Pros, Cons and the Case for a Hybrid Approach' (London: Price Waterhouse Coopers, March 2009).

¹⁵¹ Baldwin, n 2 above 272; R.N. Stavins, 'Implications of the US Experience with Market-Based Environment Strategies for Future Climate Policy' in B. Hansjürgens (ed), *Emissions Trading for Climate Policy: US and European Perspectives* (Cambridge: Cambridge University Press, 2005) 72.

organisational asymmetry that existed between generators and EIIs which was reduced in phase three and facilitated by the agency of a commission and other political actors committed to improving the ETS. It is for these reasons that the ETS case study provides such a rich crucible for understanding the dynamism in Wilson's Typology and learning how ET can be improved over time. However, one limitation remains, it is too early to tell whether carbon leakage rules are overly lenient, which may undermine the expectation of long-term optimal policy equilibriums characterized by Wilson as majoritarian politics.

This paper has significant practical, conceptual, and policy implications. Practically, it provides one of the first factual analyses of phase three's final directive and the first application of Wilson's Typology to both ETS legislative phases. Conceptually, the ETS case study demonstrates shifts between client and interest group politics, an area largely ignored by the literature. As such, an important theoretical lesson can be drawn: information asymmetry between lobbying groups during new, complex, and rushed policymaking can force client politics outcomes in otherwise interest group scenarios. This empirical reality can be reconciled with Wilson's Typology by understanding his idea of regulatory costs and benefits in a broader sense to include: transaction, collective action, and informational costs and benefits, applicable even to seemingly sophisticated, wealthy and power interest groups. The ETS case study demonstrates that these broader costs and benefits apply not only to the disparate consumers, but also to the seemingly wealthy, sophisticated and powerful; who can overcome these asymmetries relatively quickly when the lobbying game is repeated. Also, integrating policy reform theories can also help breathe life into the classic staticism of Wilson's Typology; evidenced by the agency of the commission and other political actors that facilitated a shift from client to interest group politics. From a policy perspective, useful lessons can also be drawn about the evolution of ET. Most importantly, this paper identifies a strategy for locking-in climate policy and the potential for ET reforms to reach long-term general interest equilibriums after false starts. This very preliminary analysis provides a framework that will hopefully be validated by future research. Global climate policy could hang in the balance.

APPENDIX ONE

LOBBYING POSITIONS IN BOTH ETS PHASES

Table Four: Positions of EURELECTRIC and AEIIs in ETS phases one and three¹⁵²

	EURELECTRIC	AEIIs
Phase	Sector targets: Believe that	See Table Five
one	generators should not be the sole	
	target	
	Enforcement: Favor a voluntary	
	cap and trade system	
	Allocation: Favor grandfathering	
	based on historical emissions by	
	member states	
Phase	Sector target: Favor all gases and	Sector target: Favor redesigning
three	sectors. Opposed to excluding	ETS to create an EU and global
	small installations because of	level playing field.
	market distortions.	Support the exclusion of small
		installations. Also favor a sectoral
	Allocation: If increased auctioning	and performance-based
	is inevitable then all sectors should	allocation approach for energy
	be treated equally. Auctioning	intensive industries and large
	should be harmonised at the EU	emitting homogenous processes.
	level	
	Redistribution of auctioning	Allocation: Against auctioning
	revenues should avoid creating	for EIIs because of risk of
	market distortions.	carbon leakage. Favor linking
	Oppose any allocation that	allocation to ambitious
	discriminates against the electricity	benchmarks.
	sector but favor principled	Criteria for identifying firms that
	exceptions (demonstrated by	qualify should be fair,
	robust evidence) for industries at	transparent, and objective.
	risk of carbon leakage until a	Qualitative factors should be
	global emission trading regime is	added to Commission Directive two.
	established.	

¹⁵² Source: n 75 above; n 77 above; AEII, 'Position of Energy Intensive Industries Alliance and the Alliance for a Competitive Industry for the EU ETS Review' (2 December 2008) at http://pr.euractiv.com/node/7388 (last visited 20 May 2010).

Electricity prices: Against	Electricity prices: Favor
government intervention in	regulating electricity prices for
electricity prices that undermines	EIIs or offsetting CO2 pass-
the EU ETS (higher prices) and	through costs using taxation for
liberalisation process. Also against	all sectors.
regulation of electricity generator	
profits and taxation of low-carbon	Other:
generation.	Favor abandoning the option of
	reduced-production as a means
	of lowering GHG emissions in
	Europe. Also favor ending
	distortions of the free market
	and preventing further unequal
	treatment for new entrants
	versus incumbents.

Table Five: Positions of AEIIs in phase one¹⁵³

Abbreviations

ACEA: European Automobile Manufacturers **CEFIC:** The European Chemical Industry Council CEMBUREAU: The European Cement Association CEPF: Confederation of European Forest Owners CEPI: Confederation of European Paper Industry CERAMIE-UNIE: The liaison office for the European Ceramic Industry CIAA: European Food and Drink Industries CPIV: the European Glass Industry EEA: European Aluminium Association EEF: the British Manufacturers' Organisation EISA: European Independent Steel Works Association EULA: European Lime Association EUROALLIAGES: European Ferro-Alloy Industry Association EUROFER: European Confederation of Iron and Steel Industries EUROMETAUX: Association representing the European non-ferrous metals industry EUROPIA: European Petroleum Industry Association EXCA: European Expanded Clay Industry Association IFIEC: International Federation of Industrial Energy Consumers

OGP: International Association of Gas and Oil Producers

¹⁵³ Source: n 75 above.

UNICE: Union des Industries de la Communauté européenne

AEIIs Sector target: - UNICE and IFIEC wanted as many sectors and gases to create as much flexibility and liquidity as possible to minimise effects on European and international competitiveness -EUROPIA and OGP: All sectors -EUROFER and EISA: EIASA against ETS, but EUROFER wants all sectors -CEPI and CEPF: All sectors and include transport -CEMBUREAU and CERAMIE-UNIE: Same sectors should be covered in all members states -CEFIC: Wanted chemical industry excluded from ETS -EUROMETAUX and EEA: Wanted aluminum industry excluded from ETS but as many others included **Enforcement:** - UNICE and IFIEC: The latter wanted voluntary opt-in and out, the former is silent -EUROPIA and OGP: Voluntary until 2008 no possibility of opt-out -EUROFER and EISA: Voluntary - CEPI and CEPF: Voluntary -CEMBUREAU and CERAMIE-UNIE: Voluntary start in 2005 no possibility of opt-out -CEFIC: Voluntary -EUROMETAUX and EEA: Voluntary with opt-out Allocation: - UNICE and IFIEC: Both unclear but preference for member state allocation -EUROPIA and OGP: Free with a preference for Community level oversight and guidelines - EUROFER and EISA: The former: favor relative targets by benchmarking and negotiated agreements at the EU level to avoid competitive distortions. The latter: in favor of auctioning -CEPI and CEPF: The former: Grandfathering based on common baseline. Targets set by negotiation, allocation by member states but with harmonisation of rules and compliance at community level. The latter: not specific. -CEMBUREAU and CERAMIE-UNIE: The latter: in favor of auctioning but unclear about EU role other than trading should be operational internationally. The former: against with EU role in harmonisation -CEFIC: Free member state allocation and based on negotiated agreements with trade associations -EUROMETAUX and EEA: No allowances, instead industry targets should be established, unclear on EU role although implicit that sectors means community

level

COMMISSION PROPOSALS AND DIRECTIVES

	Green Paper	Directive One
Sector	6 GHG	Article 2 (1) and Annex I & II:
target		CO ₂ . But other gases if possible
	Feasibility of energy generators	(Article 24)
	>50MWth	
		Article 2 (1) and Annex I:
	Iron, steel, minerals, cement,	Energy generators >20MWth
	pulp and paper, refineries,	
	aluminum, chemical	Article 2 (1) and Annex I: Iron,
		steel, minerals, cement, pulp and
	Opt-in and Opt-out (i.e.	paper, refineries. Aluminum,
	voluntary or mandatory)	chemical if possible
		Article 27: Mandatory. But opt-
		in for installations below level in
		directive, temporary opt-out for
		installations
Initial	For free/grandfathering	Article 10 : 95% and 90% for
allocation		free in phase one and phase two
	Preference for auctioning	respectively
	Preference for allocation by	Article 9: Allocation by
	EU	member states, EU can reject
		according to Internal Market
	Allocation by MS-EU	Rules and allocation to follow
	rules/guidelines for allocation	Burden Sharing path

Table Six: Phase one comparison of Green Paper and final directive¹⁵⁴

Table Seven: Phase three comparison of Commission Proposal Two withDirective Two155

¹⁵⁴ Source: n 70 above; n 68 above; Markussen and Svendsen, n 6 above, 256.

	Commission Proposal Two	Directive Two
Sector targets	New gases: N20 and	Annex I & II
	perfluorocarbons	Same, but also includes:
	New sectors: petrochemicals,	carbon capture, transport
	ammonia, aluminum, acid	and geological storage of all
	(nitric, adipic, glyoxylic)	greenhouse gas emissions
	Aviation is covered in a	Aviation included as of 2012
	separate proposal ¹⁵⁶	(Separate Directive ¹⁵⁷)
	Excluded small installations	Excluded small installations:
	<25MW and lower than	<35MW and lower than
	10,000 tones of CO_2 for each	25,000 tones each of last
	of last three years	three years.
Total level of	Phase three estimate: 66%	Phase three estimate: 50%
auctioning	100% auctioning in all sectors	100% auctioning in all
	by 2020 (with exception for	sectors by 2027 (with
	industries at risk of carbon	exception for industries at
	leakage)	risk of carbon leakage)
Allocation for	100% auctioning	Article 10 (c)
1	8	
generators	8	Option for Members State
		Option for Members State derogation of 100% auctioning if satisfy test: (1)
		Option for Members State derogation of 100%
		Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation.
		Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require
		Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning
generators		Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020
generators Allocation for	Free but subject to review	Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020 Article 10 (b)
generators		Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020 Article 10 (b) Free but subject to review
generators Allocation for	Free but subject to review	Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020 Article 10 (b)
generators Allocation for	Free but subject to review	Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020 Article 10 (b) Free but subject to review
generators Allocation for EIIs	Free but subject to review after Copenhagen COP 15	Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020 Article 10 (b) Free but subject to review after Copenhagen COP 15
generators Allocation for EIIs Methodology	Free but subject to review after Copenhagen COP 15 Not detailed: 'inability to pass through the cost of required allowances in	Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020 Article 10 (b) Free but subject to review after Copenhagen COP 15 Article 10 (a)
generators Allocation for EIIs Methodology for	Free but subject to review after Copenhagen COP 15 Not detailed: 'inability to pass through the	Option for Members State derogation of 100% auctioning if satisfy test: (1) level of interconnectivity; or (2) % fossil fuel generation. Derogations require minimum 30% auctioning and full auctioning by 2020 Article 10 (b) Free but subject to review after Copenhagen COP 15 Article 10 (a) More detailed: direct and

¹⁵⁵ Source: n 73 above; n 74 above, n 124 above; Commission (EC), 'Questions and Answers on the Revised EU Emissions Trading System' (Memorandum) MEMO/08/796, 17 December 2008.

¹⁵⁶ Commission (EC), Proposal for a Directive of the European Parliament and of the Council Amending Directive 2003/87/EC so as to Include Aviation Activities in the Scheme for Greenhouse Gas Emission Allowance Trading Within the Community' (Communication) COM (2006) 818 final, 20 December 2006.

¹⁵⁷ Parliament and Council Directive (EC) 2008/101 Amending Directive 2003/87/EC so as to Include Aviation Activities in the Scheme for Greenhouse Gas Emission Allowance Trading Within the Community [2009] OJ L8/3.

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significant	share to installations outside	added exceed 5% and
carbon	the EU not taking	whether total value of its
leakage	comparable action to reduce	exports and imports divided
	emissions'.	by the total value of its
		turnover exceeds 10%. If
		the result of <u>either</u> of these
		criteria exceeds 30%, a sector
		is considered at risk of
		significant carbon leakage.
Compensation	No provision	Article 10(a)
for electricity		Compensation for costs
price pass-		relating to greenhouse gas
through		emissions passed through in
_		electricity costs.
		This will be subject to
		modified state aide rules.
		Based on ex ante
		benchmarks of electricity
		consumption per unit of
		output based on best
		available technology and
		CO_2 emissions of the
		relevant European electricity
		production mix.
Provisions for	5% of the total quantity of	Article 10(a)
new market	allowance will be put into	Same except:
entrants	reserve for new installations	A part of new entrant
	or airlines that enter the	reserve, amounting to 300
	system after 2013.	million allowances will be
	Allocation from this reserve	made available to support
	will mirror rules for allocation	the investments in up to 12
	corresponding to existing	demonstration projects using
	installations or sectors	the carbon capture and
	Remaining allowances will be	storage technology and
	distributed to Member states	demonstration projects using
	for auctioning. The	innovative renewable energy
	distribution key is the same	technologies.
	as for all other allowances to	Remaining allowance
	be auctioned.	distribution will take into
	be auctioned.	account the level to which
		installations in Member
		states benefited from the
		reserve.

APPENDIX TWO

Members of the AEII on 2 December 2008158

ACEA	EULA
CEFIC	EUROALLIAGES
CEMBUREAU	EUROFER
CEPI	EUROMETAUX
CERAME UNIE	EUROPIA
CIAA	EXCA
CPIV	IFIEC

AEII PRESS RELEASES

AEII, 'Energy Intensive Industries Call Upon EU Decision-Makers to Pay More Attention to the Impact of Emissions Trading Upon their Competitiveness' (1 January 2004) at

http://www.cembureau.be/Cem_warehouse/1-

ENERGY%20INTENSIVE%20INDUSTRIES-JANUARY%202004.PDF (last visited 1 August 2009)

AEII, 'Joint Statement: Power Intensive Industries Object to Windfall Profits from Emissions Trading' (11 March 2004) at

http://www.cembureau.be/Cem_warehouse/2-

INDIRECT%20IMPACT%20OF%20EMISSIONS%20TRADING%20ON%20 ELECTRICITY%20PRICES.PDF (last visited 1 August 2009)

AEII, 'Energy Intensive Industries Reject the Inclusion of Aviation in the Emission Trading Scheme' (October 2005) at

http://www.cembureau.be/Cem_warehouse/AVIATION%20-

%20FINAL%20POSITION%20PAPER%20-%20EII.PDF (last visited 1 August 2009)

AEII, The Impact of EU Emission Trading Scheme (ETS) on Power Prices: Remedial Action Urgently Needed 10 Months After Start of ETS' (November 2005) at

¹⁵⁸ Source: AEII, Position of Energy Intensive Industries Alliance and the Alliance for a Competitive Industry for the EU ETS Review' (2 December 2008) at

http://pr.euractiv.com/node/7388 (last visited 20 May 2010).

http://www.cembureau.be/Cem_warehouse/ALLIANCE%20ETS%20AND%20 POWER%20PRICES.PDF (last visited 1 August 2009)

AEII, 'Contribution to the EU Energy Strategic Review Urgent Measures are Required to Improve the Functioning of Electricity and Gas Markets: The Alliance of Energy-Intensive Industries Proposes a Set of Solutions' (22 September 2006) at

http://www.euractiv.com/29/images/Alliance%20EII%20Energy%20Strategic% 20Review%20position_tcm29-160900.doc (last visited 20 May 2010)

AEII, 'Position Paper of the Alliance of Energy Intensive Industries on "Further Guidance on Allocation Plans for 2008 to 2012' (17 February 2006) at http://www.cembureau.be/Cem_warehouse/AEII-FINAL%20POSITION-GUIDANCE%20ON%20ALLOCATION%20PLANS-2008%20TO%202012.PDF (last visited 1 August 2009)

AEII, 'Lowering Production is No Benefit for the Environment, Says European Industry' (21 May 2007) at http://www.cembureau.be/Cem_warehouse/LOWERING%20PRODUCTION %20IS%20NO%20BENEFIT.PDF (last visited 1 August 2009)

AEII, 'Key Messages on the Emissions Trading Scheme Review' (May 2008), at http://www.eula.be/EULA/pixdyn00.nsf/0/CC786F2150045B1DC12574500026 D536/\$File/2008-05-

20%20AEII%20joint%20position%20on%20ETS%20Review.pdf (last visited 1 August 2009)

AEII, 'Letter to Commissioners for EU ETS Review' (11 January 2008) at http://www.endseurope.com/docs/80115b.pdf (last visited 20 May 2010)

AEII, 'Position of Energy Intensive Industries Alliance and the Alliance for a Competitive Industry for the EU ETS Review' (2 December 2008) at http://pr.euractiv.com/node/7388 (last visited 20 May 2010)

APPENDIX THREE

INTERVIEWS

Industry

Interview 1: Representative of the Bryman Partnership: Business & Environmental Consultancy, representing the Confederation of Paper Industries at the UK Emissions Trading Group, 10 July 2009: 14:00, London, and 20 December 2009: 17:00, London.

Interview 2: Representative of the Environmental Analyst Team, British Energy, 5 June 2009: 17:00, London.

Interview 3: Executive at EDF Energy, 5 June 2009: 16:30, London.

Interview 4: Representative for Strategy and Sustainable Development, EDF Energy, 5 June 2009: 17:15, London.

Interview 5: Representative of EEF: the Manufacturers' Organisation, 4 August 2009: 10:00, London.

Commission

Interview 1: Senior official at the Directorate-General for the Environment, European Commission, 5 June 2009: 11:30, London.

Interview 2: Official at Directorate B - Industrial Policy and Economic Reform: Directorate-General for Enterprise and Industry, European Commission, 2 June 2009: 09:00, Brussels.

Interview 3: Official at Unit for market based instruments including Greenhouse gas emissions trading: Directorate-General for the Environment, European Commission, 2 June 2009: 14:30, Brussels.

Interview 4: Official at Unit A1 Economic Analysis, Impact Assessment, Evaluation and Climate Change: Directorate General Energy and Transport, European Commission, 2 July 2009: 09:00, Brussels.