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Meeting Kyoto Commitments

European Union Influence on Norway and Germany

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Sammendrag:

I denne artikkelen søker vi å forstå og forklare hvordan EU har påvirket valg og utforming av klimapolitiske virkemidler i Norge og Tyskland, på tross av sterke etablerte nasjonale preferanser. Vi spør på hvilken måte EU har påvirket valg av politisk virkemiddel: Har EU vært en avgjørende faktor i å forme politikken, eller har nasjonale faktorer betydd mer? For å analysere disse spørsmålene empirisk fokuserer vi på beslutningsprosessen for et spesielt aktuelt og relevant klimapolitisk virkemiddel, nemlig kvotehandling. Vi ser på hvilke målsetninger de nasjonale myndighetene forsøker å møte, peker på målsetningenes underliggende verdier og preferanser, og identifiserer på hvilken måte landene har forsøkt å nå målsetningene sine. Vi undersøker hvordan denne prosessen kan ha blitt påvirket av EU. Vi analyserer beslutningsprosessen for innføring av et kvotehandlingssystem i EU, og diskuterer hvordan kvotehandling har blitt introdusert som et reelt alternativt politisk virkemiddel i Norge og Tyskland. Vi ser på i hvilken grad EU ser ut til å ha påvirket valg av dette virkemiddelet i de to landene, og peker på mulige årsaker.

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Abstract:

In this paper, we seek to understand and explain how the EU has influenced the climate change policymaking processes in Norway and Germany, despite strong prior national preferences. We ask how the EU has affected the choice and design of climate policy instruments. Has the EU been a decisive factor in shaping policy responses, or has domestic politics mattered more? To address these questions empirically, we focus on the policy formulation of a particularly relevant and recently debated climate policy issue, namely, emissions trading. We focus on the objectives that national governments have sought to meet, examine the values and principles underlying those objectives, identify the means through which each country has attempted to achieve their desired goals, and go on to investigate how this process may have been influenced by the EU. We analyze the policymaking process for an emissions trading scheme in the EU, and discuss the processes through which emissions trading has been introduced as a policy instrument alternative in Norway and Germany. We examine the extent to which the EU appears to have influenced policy instrument choice in the two countries and suggest reasons for this.

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Contents

- 1 Introduction 1
- 2 Analytical framework..... 1
- 3 Emissions trading as a new policy instrument 3
 - 3.1 THE EU: FROM SKEPTIC TO POLICY INNOVATOR 3
 - 3.1.1 *Features of the new EU emissions trading scheme* 5
 - 3.2 NORWAY AND GERMANY: COUNTRY PROFILES 6
 - 3.2.1 *Norway*..... 6
 - 3.2.2 *Germany*..... 7
 - 3.2.3 *Emissions trading and Norway* 8
 - 3.2.4 *Emissions trading and Germany*..... 11
- 4 Did the EU influence domestic climate policy? 14
 - 4.1 NATIONAL INTERESTS SHAPE POLICY INSTRUMENT CHOICE 14
 - 4.2 COMMON OBJECTIVES SHAPE DIRECTION OF CLIMATE POLICY..... 15
- 5 Conclusions 16

1 Introduction

The European Union (EU) has become a major political actor in the region. Not only has the recent enlargement process extended the institution's membership from 15 to 25 countries, but more policy fields are becoming subject to EU regulation. Foreign and environmental policies, for example, are increasingly coordinated for all EU member countries. As a result, the EU affects the development of important policy areas both in Member States, such as Germany, and in non-member countries, such as Norway.¹ In this chapter, we seek to understand and explain how the EU – a powerful political and economic institution within the region – has influenced the climate change policymaking processes in two countries, despite strong prior national preferences. More specifically, we ask how the EU has affected climate policy instrument choice in Germany and Norway. Has it been a decisive factor in shaping policy responses, or has domestic politics mattered more?

To address these questions in a real-world context, we focus on the policy formulation of a particularly relevant and recently debated climate policy issue, namely, emissions trading (ET). At the Kyoto Conference in 1997, Parties to the United Nations Framework Convention on Climate Change acknowledged that trading in emissions allowances was a cost-effective instrument to achieve greenhouse gas (GHG) emissions reductions. The specific details of how the instrument could be implemented were not decided at the time, but were left to subsequent international climate change negotiations. It was not until the Seventh Conference of the Parties in Marrakech in 2001 that agreement was finally reached on the issue. Since the Third Conference of the Parties in Kyoto (1997), emissions trading schemes have been central to foreign policy discourses in the EU, Germany and Norway, and hence provide a good basis for a case study into how the EU may have influenced the formation of national policy in these two European countries. We focus on the objectives that national governments have sought to meet, examine the values and principles underlying those objectives, identify the means through which each country has attempted to achieve their desired goals, and go on to investigate how this process may have been influenced by the EU.

We begin with an explanation of the analytical framework underpinning this chapter, namely, interest-based theory and the role of ideas in international climate change policy. We argue that these perspectives frame policy instrument choice, which is the outcome of the interplay between domestic actors and institutions on the one hand, and international organizations, institutions and regimes on the other.

As a background to understanding EU influence, the third section of this chapter systematically lays out the policymaking process for an emissions trading scheme (ETS) in the EU. The fourth section presents country profiles for Norway and Germany. We then go on to discuss in more detail the processes through which ET has been introduced as a policy instrument alternative in the two countries. In the fifth section, we examine the extent to which the EU appears to have influenced policy instrument choice in Norway and Germany and suggest reasons for this. Finally, we draw some conclusions.

2 Analytical framework

Our point of departure for understanding EU influence on policy instrument choice is anchored in interest-based theory. This implies that we assume climate policy instrument choice to be the result of bargains struck among different constituencies with a stake in climate change policy. To explain policy instrument choice, therefore, we focus on identifying the groups that participate in this process, their relative influence, and the

¹ Norway is a member of the European Economic Area, but has rejected EU membership twice after referenda in 1972 and 1994.

strategies and tactics they employ (Barkdull and Harris 2002: 74-5). In addition, we briefly examine the flow of an idea, i.e. ET, in international climate politics. Our assumption is that new ideas might show states novel ways to pursue their interests, whether unilaterally or in collaboration (Barkdull and Harris 2002: 67). Such a perspective can help us to ascertain how the concept of ET spilled over from the Kyoto negotiation process to the EU and domestic levels. Furthermore, a “policy transfer” approach is applied to investigate how and why a transfer in policy instrument choice occurs (Damro and Mendez 2003: 74). We assume that this transfer incorporates a range of processes - from coercive to voluntary, and involves the participation of both domestic and international actors.

Hence, our level of analysis is twofold. First, we demonstrate that the EU is one of several *systemic* factors influencing Norway and Germany’s decision-making. We then go on to suggest that the international system – including factors and institutions such as the EU, the Kyoto Protocol and international trade arrangements – influences state identities, their interests and behavior (Barkdull and Harris 2002: 71). Throughout the climate negotiations, the EU’s overall goals have reflected three distinct objectives: a commitment to stringent emissions reductions, a need to protect the internal market’s international competitiveness, and a growing internal demand for EU leadership in international climate change policy (Damro and Mendez 2003: 73). We point out how policy instrument choice in Norway and Germany has been guided by such systemic factors.

Second, our analysis takes place at the *domestic* level, where a struggle for influence between national social groups is assumed to be important for understanding policy instrument choice. Domestic climate policy is the result of conflict and compromise, where the assumption is that government has only partial control over the outcome, and is influenced and constrained by society (Underdal 1998: 13). Understanding the different interests and domestic compromises that have been made in Norway and Germany will therefore be important in explaining and understanding how ET as a new policy instrument came to be a reality in these two countries.

The sets of forces influencing the policy instrument transfer by the two governments are analyzed in this chapter within the international and domestic context. International forces include: trade, international prestige, Kyoto emission commitments, and of course, the EU, which represents an important political and economic supranational institution within Europe. National forces include: the policy environment, institutional structures, energy resource bases, economic interests, and national factors relevant to environmental needs. It is argued that international and domestic forces feed into the stream of policymaking, helping to explain the choice of ET as the new, preferred policy instrument. This conceptual framework is illustrated in Figure 1.

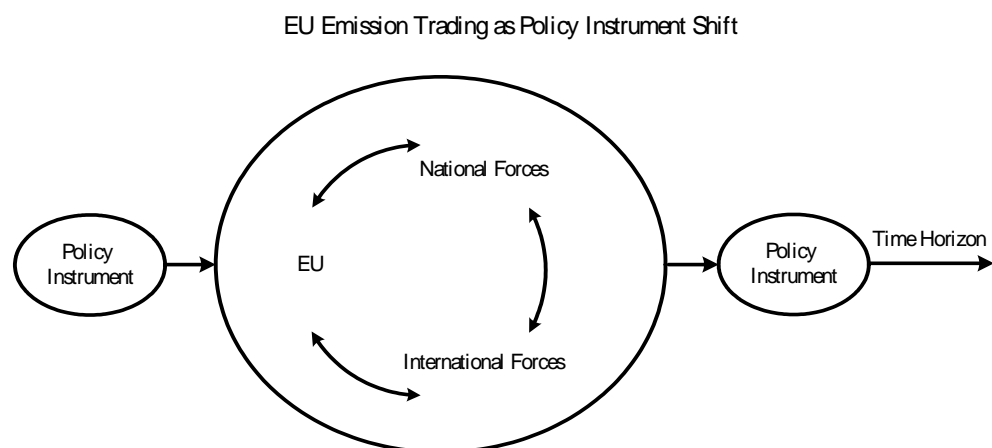


Figure 1. Emissions trading as a policy instrument transfer

The timeframe of our analysis begins in December 1997 at the Kyoto Summit, and progresses to July 2003, when an emission trading scheme was established for all EU members. It ends in March 2004, when the Norwegian government announced plans to adopt a domestic ETS mirroring the EU system.

3 Emissions trading as a new policy instrument

Before we go on to discuss the potential impact of EU membership on policymaking at the domestic level in Germany and Norway, we take a brief look at how ET emerged as a policy instrument at the EU level.

3.1 *The EU: From skeptic to policy innovator*

Today it is hard to imagine a more enthusiastic proponent of ET as a climate policy instrument than the EU. In July 2003, after a lengthy consultation process, the EU passed a directive establishing a ground-breaking, internal ETS for carbon dioxide (CO₂), due to be fully operational in 2005. Yet an observer at the Kyoto summit of 1997 could be forgiven for expressing surprise at this somewhat unexpected turn of events. The EU had, after all, put up fierce resistance to the flexibility mechanisms during conference negotiations. The delegation only agreed to the inclusion of Article 17 of the Kyoto Protocol (paving the way for an ETS) under severe pressure from the United States, who made it clear that agreement on targets and timetables – a cornerstone of EU policy – was contingent on the inclusion of market-based instruments.

So how did this significant U-turn come about? We begin with a survey of the key events leading up to the establishment of an internal EU ETS, which is summarized in Table 1. To follow, we investigate the features of the new scheme before going on to explore events at the domestic level.

At Kyoto, the EU position was one of risk-prevention leadership. This refers to its commitment to the precautionary principle (see *COM(2000) 1* for details), and to an environmental policy historically based on, ‘stringent CO₂ reductions, fierce protection of the internal market’s international competitiveness and a desire for leadership in global climate change policy’ (Damro and Méndez 2003: 75). From its conception in the 1980s, EU climate policy had centered on regulation and harmonization, targets and timetables. Flexibility mechanisms, such as ET, had been viewed with caution and even suspicion, as it was feared that such policy instruments would only serve to create loopholes allowing some countries (the US in particular) to buy their way out of making domestic emissions reductions. More to the point, it was thought that such instruments may ultimately pose a threat to EU competitiveness by hampering economic interests and undermining EU attempts to establish itself as a global environmental leader.

Article 17 of the Kyoto Protocol introduced ET as one of the three flexibility mechanisms available to assist industrialized countries to meet their emissions reduction targets. The subsequent EU dialogue, initiated by the European Commission during the two years preceding Kyoto,² could thus be seen as a reaction to the EU’s international commitment to the establishment of a global GHG trading system. The Commission expressed repeated support for a public dialogue on an internal ETS, suggesting that, ‘the best preparation for the Community and its Member States might be to develop their own ET experience.’³ In keeping

² See “Towards an EU Post-Kyoto Strategy” COM (1998) 353 and “Preparing for Implementation of the Kyoto Protocol” COM (1999) 230.

³ See “Preparing for Implementation of the Kyoto Protocol” COM (1999) 230.

with this sentiment, a Green Paper launching an EU consultation process on ET was published in the spring of 2000, which advocated a bottom-up pathway. Soon after, a working group comprising representatives from Member States, industry, and environmental pressure groups was established under the auspices of the European Climate Policy Programme, which in May 2001, presented its support for the launch of an EU ETS. This somewhat informal process was eventually formalized in autumn 2001, when the Commission put forward their 'Proposal for a Directive for greenhouse gas emissions trading within the European Community,' thus beginning the legislative process at Member State and EU level (Commission 2001: 581). The European Council and Parliament tabled amendments to the Directive in late 2002 and early 2003 respectively. The Proposal was finally approved in July 2003, and the Directive entered into force three months later, establishing an internal ETS to be operative in 2005.

Table 1: Emissions trading and the EU

Year	Event	Significance
Dec 1997	Kyoto Protocol (Article 17)	- Commits the EU to reducing GHG emissions by 8 per cent from 1990 levels during the period 2008 and 2012 - Introduces ET as one of three flexible mechanisms to be operationalized internationally
Jun 1998	Commission Communication to the Council and Parliament: Climate Change – Towards an EU Post-Kyoto Strategy <i>COM(1998) 353</i>	- Launches target date for ETS as 2005, 'the Community could set up its own internal trading regime by 2005 as an expression of its determination to promote the achievement of [Kyoto] targets in a cost-effective way' - Advocates a step-by-step approach in the development of ETS
May 1999	Commission Communication to the Council and Parliament: Preparing for Implementation of the Kyoto Protocol <i>COM(1999) 230</i>	- States urgent need for an informed debate on the instruments of ETS; proposes Green Paper - Suggests ETS should initially be limited to CO ₂ in 'key sectors,' but should gradually be extended to other sectors and gases
Mar 2000	Green Paper on GHG ET within the EU <i>COM (2000) 87</i>	- Establishes consultation process, 'which will allow all stakeholders, both governmental and non-governmental, to give their opinions on how the EU should strike the right balance in the use of ET'
Jul 2000	European Climate Policy Programme established	- Working group investigates climate policy alternatives; in May 2001 recommends ETS is established 'as soon as practicable'
Oct 2001	Proposal for a Directive for GHG ET within the EU <i>COM(2001) 581</i>	- Begins legislation process at EU and Member State level
Dec 2002	Council presents Amended Proposal for a Directive of the European Parliament (EP) and Council	- Establishes scheme for GHG ET within the EU - Amended by EP in spring 2003
Jul 2003	EP and Council approve Proposal for Directive establishing internal ETS <i>COM(2003) 403</i>	- ETS to be operative in 2005 and to be extended to all Member States of the enlarged EU
Oct 2003	Directive of EP and Council published in Official Journal of EU	- Directive establishing EU ETS officially enters into force

3.1.1 Features of the new EU emissions trading scheme

The newly approved EU ETS gives Member States flexibility in meeting Burden Sharing Agreement⁴ targets by establishing a multi-national trading system in GHG emissions allowances. The underlying motive behind the scheme is that it encourages installations, i.e. individual firms, to make emissions reductions at the lowest cost to the economy, driving efficiency and fostering innovation. Central features of the mandatory system due to enter force in 2005 are: limited coverage, permit allocation by Member States, non-compliance penalties, an opt-out for individual installations, and the inclusion of CDM project-based mechanisms. These elements are discussed further below.

Coverage

Gases: Although the Directive covers all Kyoto GHGs in principle, it states that for the first phase, ET will be confined to CO₂. The gas accounts for over 80 per cent of EU GHG emissions, and it is estimated that units participating in the scheme will be responsible for 46 per cent of CO₂ emissions in 2010.

Sectors: The scheme applies to energy-intensive companies such as power plants, steel factories, oil refineries, paper mills, and glass and cement installations.

Allocation

The mandatory system with unspecified caps gives Member States the responsibility to set reduction targets and allocate emissions allowances. Ninety-five per cent of permits must be distributed free of charge in 2005-7 (falling to 90 per cent from 2008), but governments may choose to auction the remainder. Allocation must be based on an emissions path compatible with national targets, and must also comply with the criteria laid out by the Commission in Annex III of the Directive. Member States were required to submit National Allocation Plans to the Commission by 31st March 2004, detailing the quantity and allocation of allowances in order to minimize market distortions. Five members met this deadline, and as of May 2004, a total of twelve states have submitted their final plans, while five more have delivered draft proposals.⁵

Compliance

Strict non-compliance penalties of €40/t CO₂ will apply in 2005-7, rising to €100/t of GHG emissions from 2008. A strong financial deterrent was implemented in the interest of efficiency and political acceptability, and drew from the experience of the US SO₂ trading scheme, which achieved an 'excellent compliance record' as a result of the imposition of monetary penalties (Christiansen and Wettstad 2003: 5).

Opt-out

Individual firms (but not sectors) can opt out of the trading system if they can demonstrate a commitment to making the equivalent emissions reductions. The opt-out is restricted to the first phase of the scheme, and is most likely to be used by Britain (where an ETS has already been established) and possibly also Germany (where there is a history of voluntary environmental agreements).

⁴ Commonly referred to as the 'EU-bubble'. Within the bubble, the EU is allowed to distribute emission reductions between member countries, thus providing a flexible and cost-effective way of reaching the target of 8% emissions reductions.

⁵ Member States that have submitted their final National Action Plans are: Germany, Finland, Ireland, Denmark, Austria, Luxembourg, The Netherlands, Sweden, Slovenia, Lithuania, the United Kingdom and the Slovak Republic. Latvia, Portugal, Belgium, Italy and Estonia have only provided the Commission with draft proposals.

See: http://europa.eu.int/comm/environment/climat/emission_plans.htm for more details.

Clean Development Mechanism (CDM) and Joint Implementation (JI)

The EU ETS will accept credits from CDM projects from 2005, and from JI schemes from 2008 (in accordance with the recently amended Linking Directive⁶).

3.2 Norway and Germany: Country profiles

Having schematically discussed the policymaking process in the EU, we now turn to Norway and Germany. The country profiles highlight the special circumstances that have been important in climate change policymaking. We then move on to point out how the transition to ETS occurred in each of the countries.

In the early 1990s, German GHG emissions were significantly reduced. The trend continued in the late 1990s, but at a slower pace. Emissions are projected to fall by 33.6 per cent by 2010, (see Table 2). In contrast, Norwegian emissions are growing steadily and projections highlight an increasing gap between likely emissions levels and Kyoto commitment targets.

Table 2: Emissions trends. Germany and Norway's Kyoto commitments, actual and projected emissions

Country	Kyoto commitment	Actual emissions (2000)	Projected emissions (2010)	"Gap" between projections and commitments in 2008-12
	%	%	%	%
Germany	- 21 ⁷	- 19.1	- 33.6	-12.6
Norway	+ 1	+ 6	+ 22	+ 21

Sources: National Communications (NC3) and figures from the Climate Secretariat (UNFCCC)

3.2.1 Norway

Norway's distinctive energy and industry profile is characterized by a heavy reliance on hydroelectric power, oil and natural gas extraction, and high demand for transport. Hydropower fuels domestic energy consumption (99 per cent of electricity production), and forms the basis for the energy-intensive process industry, which currently accounts for a fifth of the country's GHG emissions (NC3 2002: 61). A decentralized settlement pattern makes transport the largest emitter – producing 31 per cent of GHGs (1999), while the petroleum industry was responsible for a further quarter in 2000 (Statistics Norway 2003). Oil and gas are key sectors, contributing 30 to 47 per cent to export revenue, and between 11 and 25 per cent to GDP in 1998-2000 (NC3 2002: 17). Taken together, these factors lead to high abatement costs for Norway.

The introduction of a CO₂ tax and the onset of an economic recession resulted in falling GHG emissions in the early 1990s (see Figure 2). However, levels soon began to rise, and are now projected to increase by 22 per cent between 1990 and 2010 (see Table 2). Norway ratified the Kyoto Protocol in May 2002, but faces considerable challenges in meeting its commitment target of a 1 per cent increase from 1990 levels.

⁶On 20th April 2004, the European Parliament adopted an amendment bringing forward the starting date of the 'Linking Directive,' which will allow credits from CDM projects to be used from 2005, rather than 2008 (as proposed by the European Commission).

⁷ Strictly speaking, Germany's Kyoto commitment is -8 per cent, as this was the figure negotiated for the EU block as a whole. However, its national target according to the 'EU bubble' system is a 21 per cent reduction in GHG emissions.

3.2.2 Germany

In contrast to Norway, Germany has managed to implement GHG emissions cuts of 19 per cent since 1990. Largely owing to the structural changes resulting from reunification, it is well on track to meeting its Kyoto target of a 21 per cent reduction from 1990 levels by 2005 (see Table 2). With the exception of the transport sector, it has managed to reduce emissions in all source groups, through measures including: reduced coal and lignite consumption; economic and industrial restructuring; and improved energy efficiency and management practices (IEA 2002).

Limited indigenous energy resources make Germany increasingly reliant on imports of natural gas, oil, and even coal – which still fuels 50 per cent of electricity production. Although hard coal remains heavily subsidized (IEA 2002), the state has also given financial support to green electricity. Renewables currently account for only 2.6 per cent of total energy use (IEA 2002), but Germany has a quarter of the world's installed wind power capacity.

There is no doubt that Germany achieved significant emissions reductions during the 1990s. However, the opportunity awarded by reunification was unique, and it will be much more politically and economically costly to reduce emissions further and reach the government's ambitious target of an additional 25 per cent reduction in CO₂ emissions from 1990 levels by 2005.

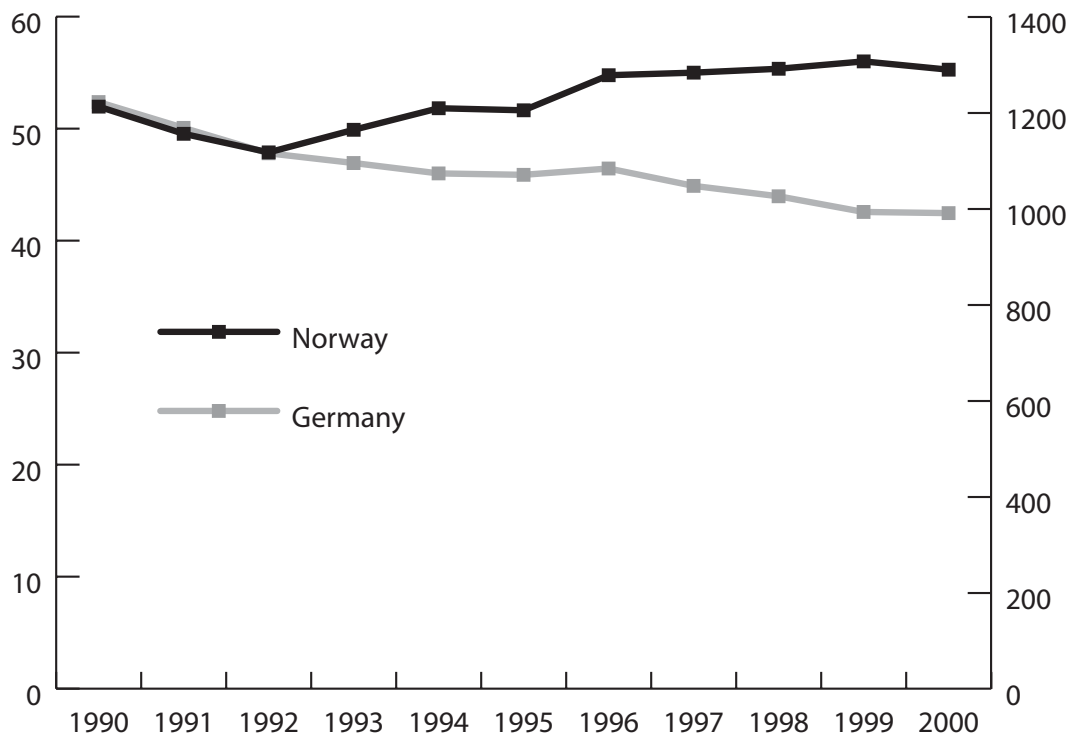


Figure 2: Emissions of GHGs in Germany and Norway 1990-2000. Million tonnes of CO₂ equivalents. The left axis shows Norwegian absolute emissions, while the right axis shows German.

Source: UNFCCC

Figure 3 illustrates the structural differences between Norway, Germany, and the EU as a whole. In the following sections we discuss how their contrasting economic profiles caused our case study countries to develop very different national positions on the idea of ET as a climate policy instrument at the outset.

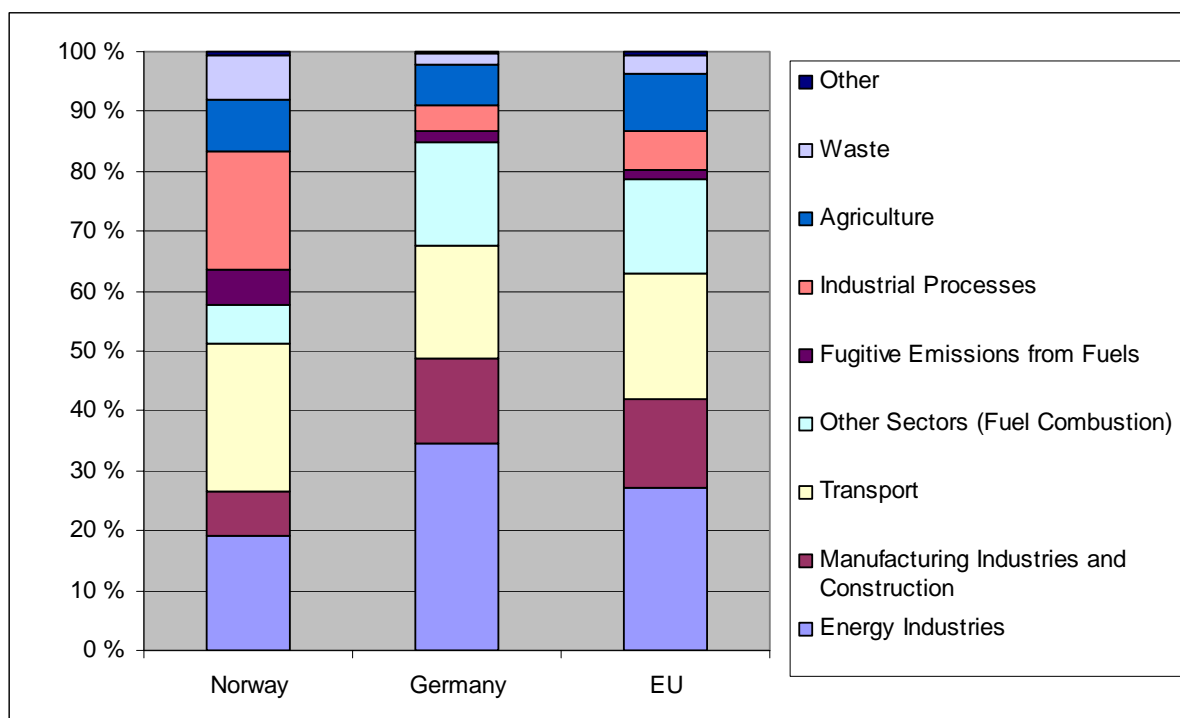


Figure 3: Relative GHG emissions in Norway and Germany by source, 2000⁸

Source: UNFCCC

3.2.3 Emissions trading and Norway

Objectives and underlying values and principles

In many ways, Norway led the EU in terms of its willingness to accept the flexibility mechanisms that were agreed upon at the Kyoto Conference. The shift from command and control instruments to a more market-oriented approach took place in the early 1990s. Underlying these approaches were the *polluter pays principle* and the *precautionary principle* that had been incorporated into Norwegian environmental policies in the 1970s and 80s respectively (Jansen and Osland 1996: 188-9). By the close of the 1980s, a desire to be an instigator in international environmental politics began to gather momentum (Andresen and Butenschøn 2001: 338). This was partly driven by Prime Minister Gro Harlem Brundtland's position as Chairperson of the UN World Commission on Environment and Development. The resulting report, *Our Common Future*, was published in 1987, and singled out climate change as a key issue. This spilled over into the national political arena (Bang 2004: 268-269), and fostered strong public awareness of environmental concerns in the run-up to the 1989 parliamentary election. It also contributed to the country's willingness to be among the first to adopt a unilateral policy target of stabilizing CO₂ emissions at 1989 levels by 2000.

However, it soon became apparent that the stabilization target conflicted with vital economic interests, such as the expansion of the oil industry and plans to export natural gas to Europe. This led to a distinct change in policy objectives, based on the principles of international cost-effectiveness, flexibility, and ET. Norway supported US initiatives to

⁸ Discrepancies between the data in this figure and the text are due to domestic sectors being categorised differently by national statistics bureaux to reflect their contrasting national circumstances. We have included Figure 3 – based on UNFCCC categories – to give a comparative overview.

introduce the idea of flexibility mechanisms at the climate change negotiations as early as 1991. It abandoned the stabilization target a few years later (Hovden and Lindseth 2002: 149).

Policy instruments

Norway's first policy response to the climate change challenge was to implement a set of environmental taxes and regulations. First and foremost, a CO₂ tax was adopted in 1991, which became, and still is, the country's chief climate policy instrument. Industries exposed to international competition, such as the process industry, were exempt from the tax, which was levied on almost two-thirds of CO₂ emissions and covered just under half of total GHG output (White Paper No. 54, 2000-1).

As a follow-up to Norway's Kyoto commitments and to a state-appointed Green Tax Commission Report, in 1998, the center-coalition government proposed broad environmental tax reforms to incorporate the sectors previously enjoying exemptions from the tax⁹. While environmental NGOs supported the government's recommendations, business associations and energy intensive industries were highly critical. Between 1995 and 1997, they had pressed for voluntary agreements, voicing skepticism that taxation would deliver the desired environmental benefits and arguing that the measure was just a ploy to broaden the government's tax base at their expense. In the post-Kyoto climate (1997 onwards), however, their attention quickly turned to ET. Business and industry began to lobby for the introduction of an international ETS in place of the CO₂ tax because it allowed them to substitute expensive domestic mitigation measures with cheaper emissions reductions abroad. Opposition parties, which had close links to the energy intensive industries, claimed that ET would improve efficiency, and suggested that industry's competitiveness problem could be solved by the allocation of free quotas. Under duress, the government agreed to examine the potential benefits of a national ETS. This process was independent of the EU, and inspired by the Kyoto Protocol's opening for enterprises to participate in ET.

From green taxes to domestic emissions trading

To a large extent, the reasoning behind Norway's increased focus on ET can be traced back to its energy profile, the economic interests of the state, and its commitment to the climate change issue. As already discussed, the country's dependence on hydropower, combined with its status as a large petroleum producer, meant that it faced high emissions abatement costs. It is perhaps therefore unsurprising that when an economically and environmentally efficient solution to the climate problem presented itself in the form of ET, it very quickly made it onto the agenda, especially given the highly institutionalized links between industry organizations, the major political parties (in particular the Labor and Conservative Parties), and interest groups (Kasa 2000).

Our claim is that the motivation to introduce ET came primarily from the Kyoto Protocol, domestic academics, and industries likely to suffer from broad environmental tax reform, rather than from the EU. Instead, the European influence was confined to shaping the *design* of the domestic ETS that Norway now intends to implement.

Important academic contributions emerged when a government-appointed Commission presented its evaluation of ET as a policy instrument for Norway in December 1999. To a large extent, its recommendations were adopted in June 2001, when the new Labor minority government proposed that the CO₂ tax be replaced with an ETS from 2008, to include all Kyoto gases (NOU 2000:1).¹⁰ The plan was the result of fierce lobbying on the part of both the industry sector and the Ministry of the Environment.

⁹ White Paper No. 29 1997-98 and White Paper No. 54 1997-98

¹⁰ Although the recommendations were adopted, agreement was not unanimous.

Following the General Election of 2001, the new center-right government (Liberals, Christian Democrats and Conservatives) signaled a change in environment policy when it presented a supplementary White Paper in March 2002 (White Paper No. 15, 2001-2). Among other measures, it proposed a mandatory ETS for industries *not* covered by the CO₂ tax, designed to be a supplement to the tax in the pre-Kyoto period (2005-7). The shift to a broad ETS from 2008 had wide parliamentary support, and was backed by powerful industry groups such as the petroleum sector, which stood to gain financially from an ETS, as the price of emissions permits was expected to be significantly lower than the carbon tax rate.¹¹ On the other hand, the proposed pre-Kyoto ETS was controversial, and was heavily criticized by industry, and the Labor and Progressive Parties, who preferred voluntary agreements. Key features of the government's proposed scheme in 2002 were as follows:

- *Coverage* Participation limited to sectors exempt from the CO₂ tax (primarily the process industry). Some GHGs to be included from 2005 (CO₂ and other climate gases from industries exempt from the CO₂ tax for the majority of their emissions) (White paper No. 15 2002:7), but all to be incorporated in 2008 - covering approximately 80 per cent of emissions.
- *Allocation* Free allocation of emissions allowances (2005-7). Opportunity to auction and discriminate between sectors from 2008 (e.g. free quotas may be allocated to activities vulnerable to international competition).
- *Compliance* Standardized, binding, and transparent monitoring; verification and reporting procedure; sanctions for non-compliance.
- *Clean Development Mechanism* Credits from CDM projects to be included from 2005.

EU influence on the Norwegian ETS

Norway has long stated its preference to implement a system that is compatible with an EU ETS. The government has actively tried to influence the EU policymaking process, and has asked for "sufficient flexibility to reflect national circumstances" (Brende 2002). However, its efforts have met with little success.

Norwegian objections to the EU system have been threefold. First, it wanted to "opt-in" the major polluting domestic sectors that are excluded from the European scheme, such as the process industry, to make the system as broad as possible. Second, it would have liked to include more GHGs. The EU Directive is restricted to CO₂, which covers 46 per cent of EU GHG emissions, but only 27 per cent of Norway's. A third bone of contention has been the allocation of emissions rights. Norway prefers free allocation in 2005-7, followed by auctioning in the Kyoto period, but the EU system allows 5 per cent of allowances to be auctioned from 2005, and only 10 per cent from 2008.

In March 2004, the Norwegian Minister for the Environment announced his country's intention to implement a domestic ETS in 2005 that will be compatible with the EU ETS (Brende 2004). Perhaps of greatest surprise is that Norway will develop a system largely in line with the EU ETS instead of requiring special treatment on the basis of its unusual economic structure, which many had expected would be a necessary condition for Norwegian entry into the EU system. As a result, the process industry, representing Norway's main potential source of emissions reductions, will only take on responsibilities in the form of *voluntary* agreements. Meanwhile, Norway's road transport, oil and gas sectors will continue

¹¹ During the parliamentary legislative process of the Norwegian pre-Kyoto ETS in late 2004, the Norwegian Oil Industry Association (OLF) were actively promoting a "solution" which should be better for the global climate: including the offshore industry in the pre-Kyoto ETS. However, the fact that inclusion in the pre-Kyoto ETS would save the oil industry 3.6 billion NOK in CO₂ taxes, was not stressed.

to be covered by the CO₂ tax until 2008. If a broader ETS is introduced, it could imply a huge tax relief for these sectors since permit prices will be lower than the tax level.

Following on from the March announcement, the Ministry of the Environment held a public hearing to discuss the draft legislation in June 2004. It emphasized Norway's intention to negotiate an agreement in accordance with the Directive's article 25 with the European Commission that would provide for a mutual recognition of allowances between the EU ETS and the ETS.

Despite Norway's previous reservations, it is now prepared to compromise its more ambitious system – in terms of gases and sectors – in order to adapt to the EU scheme. While it can be argued that it has a legal right to reject the Directive, it would be difficult to justify on political and economic grounds, as such a move may endanger its EEA agreement. Its willingness to join an ETS that may cover as little as 10 per cent of its greenhouse gas emissions (Torvanger 2004), gives an indication of the strength of EU influence on Norwegian climate policy.

3.2.4 Emissions trading and Germany

Objectives and underlying values and principles

While the Kyoto Protocol put ET on the agenda for the EU, it was EU interest that sparked the domestic debate in Germany. The objectives that the German Federal government has sought to achieve through its climate change policy have been constant since the issue was put on the political agenda in the late 1980s. With considerable focus on making environmentally efficient emissions reductions domestically, Germany has also been keen to play a leading role internationally, but at the same time defend the competitiveness of its large manufacturing industry.

There are several values and principles underlying these goals. First, the precautionary principle has had a central position in German environmental policy. The proposition implies that in spite of scientific uncertainty, the climate change issue should be addressed with precautionary measures. Second, green values run strong in German public opinion. This gives all political parties good reason to promote proactive environmental policies. Third, as a major economic force in Europe, Germany has wanted to show leadership. Climate change has provided the country with a real opportunity to do this, in contrast to other issue areas, such as international peace-keeping. Finally, it has been important to ensure that Germany remains an attractive location for industry. Promoting equal opportunities for firms, especially in the common market, has therefore been an important aspect of climate change policy (Bang 2004: 291-298).

The unique event of reunification allowed Germany to meet several of these policy objectives simultaneously. Modernizing outdated factories in East Germany resulted in huge windfall cuts in national GHG emissions. This allowed impressive emissions reductions to be made without exposing the manufacturing and process industries to negative economic consequences.

Policy instruments

Germany approached the climate change challenge with a set of command and control policy instruments that had been tried and tested in other policy fields. Three types of regulations were preferred: environmental laws, ordinances, and technical specifications. With a strong legalistic-bureaucratic tradition in German politics, these policy instruments were preferred by both the Christian-Conservative-Liberal and the Red-Green coalitions.

Furthermore, the voluntary agreement between industry associations and government, directed at CO₂ emissions reductions, had broad political support. The 1996 agreement committed industrial associations – representing four-fifths of industrial energy consumers – to reducing CO₂ emissions by 20 per cent from 1990 levels by 2005 (Bang 2004: 229). With

this policy measure, Germany achieved both emissions reductions *and* consensus in policymaking, as well as avoiding legal mandatory regulation of the industry sector. In other words, the decision to implement a voluntary agreement instead of carbon taxes was made in “the shadow of the law” (Würzel et al. 2003: 120).

When the Red-Green coalition took office in 1998, it had become evident that the reunification effect was wearing off and that intensified policy measures were needed to continue the trend of national emissions cuts. The government initiated a five-step ecological tax reform to reinforce climate policy. Furthermore, it presented a new and intensified national climate change protection program in October 2000, where the voluntary agreement and the ecological tax reform were presented as the most vital ingredients. The scheme did not mention ET as a serious alternative for German climate policy. Although researchers began discussing the topic academically in 1997¹² when it became part of the Kyoto Protocol, policymakers did not approach the issue until 2000-1. Our claim is that ET entered the German policy agenda as a direct result of the internal discussions in the EU, and the policymaking process leading to the proposed Directive in 2001.

Emissions trading as a new policy instrument

Germany had managed to cut its GHG emissions by 18.5 per cent from 1990 levels by 2000. The Federal government pointed to its command and control approach – combining mandatory and voluntary policy measures – as the main reason for this reduction (BMU 2001), though reunification certainly had an important part to play. Furthermore, the government specifically expressed that a new policy instrument must not reduce the effectiveness of its current climate protection program. Chancellor Schröder publicly opposed an ETS, while Environment Minister Jürgen Trittin supported it (Würzel et al. 2003: 124).

Moreover, strong industrial pressure groups in Germany have been reluctant to accept the introduction of an ETS. In particular, the German Industry Association (BDI), the Chemical Industry Association (VCI), and the energy intensive sector have voiced strong opposition. A 2002 survey points out that general knowledge about ET has been quite low in German industry, especially in small- and medium-sized firms (Santarius and Ott 2002: 5). Many companies would like to preserve the voluntary agreement, and have expressed concern that an ETS might not take into account the “early action”¹³ reductions implemented through the voluntary agreement since 1995.

Meanwhile, other business sectors, such as banking, have strongly supported the implementation of an ETS (Würzel et al. 2003: 127-128), which is perhaps of no great surprise given the likely benefits to the industry of the creation of a new financial market.

We argue that the discourse on ET in Germany was primarily a response to activities at the EU level, but also a reaction to developments in other Member States, i.e. Denmark and the UK. Suddenly, Germany found itself in jeopardy of losing its leadership role. It appeared that if the country didn't form a clear position on the issue, an EU-wide ETS could be imposed from above that they may have little or no influence over.

In the tradition of consensus policymaking, the Federal government's reaction to this growing concern was to establish the German Emissions Trading Group (AGE) in October 2000. The Working Group brought together representatives from the Federal and Länder governments, the German Bundestag, trade and industry (30 companies and 9 industrial associations), and environmental groups and agencies. The level of disagreement within the group was high. The chemical and aluminum industries were so opposed to ET that they ran

¹² There were earlier academic discussions on ET in the 1980s and 1990s, but it became revitalized as a result of the Kyoto Protocol negotiations with its focus on ET as a preferred policy instrument.

¹³ Taking “early action” into account refers to selecting an early base year so that companies making emissions reductions early on are not penalised.

an ad-campaign in 2001 warning of the adverse economic consequences of ET for German industry (Butzengeiger et al. 2003: 221). The Federal government, meanwhile, was starting to warm to the principle of an EU-wide ETS. It saw the idea of the scheme as a means through which domestic climate policy objectives could be met cost-effectively. Furthermore, ETS could potentially lift Germany to the forefront of an innovative environmental trading scheme, and in doing so revive its role as an environmental pioneer.

In September 2001, AGE presented its findings in a report that was widely supportive of an EU-wide ETS. It contained the following recommendations:

- *Launch of EU ETS with a voluntary three-year pilot scheme including economic incentives for participation*
- *Coverage* Participation limited to firms with proven ambitious reduction commitments; scheme initially limited to CO₂, but to be extended to all six Kyoto GHGs
- *Allocation* Absolute emissions caps, allocation of permits through hybrid system combining grandfathering *and* auctions
- *Compliance* Standardized, binding and transparent monitoring, verification and reporting procedure; penalties for non-compliance
- *JI and CDM* emissions credits to be included

These recommendations were accepted by the Federal government, and presented in a Position Paper at an EU Commission discussion later that month. In addition, German industry pressured the government to propose an “opt-out” clause, giving Member States the right to withdraw sectors from the ETS pilot phase. Furthermore, the Federal government was pushed into proposing a “pooling-model” that would allow industry sectors to pool emission allowances in order to maximize cost-efficiency. Finally, Germany also proposed that “early action” be acknowledged (Butzengeiger et al. 2003: 221).

Since 2002, ET has been accepted as an unavoidable development in Germany. Rather than *opposing* the implementation of the policy instrument outright, the Federal government and German interest groups have sought to *influence* the proposed EU scheme. But to what extent have they been successful? Germany’s interests were perhaps better defended in the EU Directive proposed in October 2001 than in the final form of the Directive passed in July 2003, but the ultimate outcome was largely what the Germans had campaigned for. In line with German requests, permits will be allocated free of charge (with a small proportion available for auction); the system will cover CO₂ (to be extended to other GHGs in the future); monitoring and reporting is to be standardized and binding; penalties will be dealt out for non-compliance; and credits from CDM and JI will be incorporated in the first and second phase, respectively.

Calls for “early action” to be taken into account have also been met in so far as Member States have a free reign over the distribution of permits and can therefore chose to allocate allowances on the basis of historical emissions and select an early base year if they wish to do so. Furthermore, fierce lobbying from the German Chemical Industry Association appears to have paid off, as chemical installations are due to be excluded from the first phase of trading.

On the other hand, three elements that Germany had pressed for will *not* be included in the final scheme: the voluntary, three-year pilot phase; absolute rather than flexible emissions caps; and an “opt-out” clause giving Member States the right to withdraw sectors from the scheme. As the finally approved opt-out applies to installations rather than to sectors it will be much harder – if not impossible – for an entire sector to opt-out of the EU ETS. It is also improbable that pooling will materialize in the absence of a mandatory obligation, as companies achieving emissions below their allocations are unlikely to want to give away surplus permits to laggards within their potential pool (Stiansen 2003).

In the meantime, some Federal states (Länder) have taken the ET concept one step further and started their own “test” systems to gain experience before the EU-wide system comes into effect in 2005. A pilot project was conducted in Hesse, Germany from August 2000 to May 2001.

4 Did the EU influence domestic climate policy?

In domestic politics, two major paths feed into the formation of national interests. Both of these paths influence the objectives of climate change policy and affect policy instrument choice. First, societal interests, which are formed by values, norms and principles, guide policymakers and public opinion, and determine what reaches the policy agenda. Second, the national economy, which is represented by elements such as industrial structure and energy profile, shapes the national interest, and in doing so, directs policy choice. Below, we discuss these two paths in more detail, starting with the latter.

4.1 National interests shape policy instrument choice

In the ET discourse, significant shifts have occurred in the relative positions of Norway and Germany since the early 1990s.

Norway has supported the idea of an *international* ETS from a very early stage. Although this stance conflicted with the position of environmental groups, the principle of cost-effectiveness ran deep in the thinking of government officials and other key policymakers. It provided the opportunity for a broad range of sectors and gases to be incorporated in a single trading system that promoted the most cost-effective emissions reductions. In this setting, the Norwegian industrial lobby was able to push international ET onto the policy agenda, and played a major role in Norway’s decision to opt for an ETS from 2008-12. As for the pre-Kyoto ETS from 2005, Norwegian industry was successful in protecting its interests at the EU-level through its European branch associations when it became clear that the Norwegian government preferred an early ETS to voluntary agreements.

The European business lobby had a major influence on the design of the EU ETS (Markussen and Svendsen, forthcoming). In particular, the aluminum industry was successful in securing exemptions from the European system. In Norway, this resulted in the aluminum industry taking on voluntary agreements instead of participating in the pre-Kyoto ETS.

The proposed Norwegian pre-Kyoto ETS would not have been politically acceptable to the EU, therefore Norway has been forced to take into consideration an alternative approach. Given its longstanding enthusiasm for a broad international ETS, it is significant that as an EEA member it has been forced to adapt to the less ambitious EU ETS. The government’s failure to negotiate any special considerations based on its unusual economic and energy structure points to the constraints that international factors have placed on the country’s domestic policy choice. External and domestic factors had interacted to redefine Norway’s national interests, and the EU had demonstrated its power as a supranational force to influence domestic policy.

In contrast, Germany wanted to make emissions reductions domestically at the outset. Its industrial structure, the process of reunification, and a high dependency on fossil fuels (coal in particular), made it possible to achieve substantial reductions during the 1990s using a command and control approach. The industry sector agreed to shoulder emissions reductions, but preferred voluntary agreements that allowed cutbacks to be distributed within sectors. Industry associations initially resisted replacing these voluntary agreements with ET. As had been the case in Norway, the German industry lobby strongly shaped the government’s positions on the issue. However, in contrast, it opposed ET because the voluntary agreement was more economically attractive.

Our assessment indicates that Germany, along with Norway, has accepted the EU ETS as the new preferred policy instrument as a result of changed perceptions about national interests. As an EU member country, Germany is bound by the economic regulations of the common market. Having first resisted the introduction of the ETS, Germany has since 2001 been active in trying to influence the system, and has even started a pilot scheme to prepare for the EU launch in 2005.

In other words, Norway and Germany's very different economic and energy structures to some extent explain why their national interests, and consequently their early positions on emissions trading, were so polarized. The EU's sudden interest in ET, however, acted as common external force pressing both domestic arenas for change, and serving to redefine national interests in both countries. In Germany, ET not only entered the agenda, but became the centerpiece of the country's climate policy program. On the other hand, in Norway, where ET had been championed for over a decade, the comprehensive domestic system that the country had proposed was watered down so that it could be harmonized with the EU ETS. Thus from very different starting points in the early 1990s, German and Norwegian attitudes to ET as a climate policy instrument have converged to imitate the EU directive.

4.2 Common objectives shape direction of climate policy

Although Norway and Germany have both arrived at the conclusion that ETS is the best means of reaching their policy objectives, it is interesting to note that their policy goals have remained remarkably stable.

We have already observed that as a result of decisions taken at Kyoto, the EU had reluctantly embraced the new policy concept of ET. Its objectives at the climate negotiations had been to promote stringent emissions reductions, to secure the internal market's international competitiveness, and to take on a leadership role in global climate change policy. ET now became the vehicle by which the EU could pursue those objectives. Hence, ET was a novel idea that was originally introduced by the United States, and diffused via the international negotiations to influence EU climate policy.

However, the EU's underlying objectives remained unchanged. Instead, it was gradually persuaded that ET represented a window of opportunity for the re-launch of its climate policy, a means through which it could meet Kyoto targets cost-effectively, and a chance to reassert its global leadership credentials as an environmental frontrunner. "A synergistic and multilevel mix of explanatory factors, including developments at the international, EU, Member State, sub-national, and even down to the personal level" heralded a U-turn in EU attitude towards ET as a climate policy instrument and resulted in the establishment of the first regional GHG ETS of its kind in Europe (Christiansen and Wettestad 2003: 3).

Norway and Germany have had similar climate policy objectives. In both countries, several elements have been critical: the precautionary principle, the polluter pays principle, the desire for leadership, the promotion of environmentally efficient commitments, and the protection of the industry sector's competitiveness. The precautionary principle and the polluter pays principle are ideas that have been accepted in environmental foreign policy since the first UN Conference on Environment and Development in Stockholm in 1972. To a large extent these ideas and objectives have been kept in the policy loop by environmental pressure groups, and a consistently "green" public opinion in both Norway and Germany.

Both countries have expressed a desire for leadership on this particular issue. For Norway, a leadership role has been credible due to the country's established "green" reputation. The environment represented a "soft" policy issue that even a small country could try to influence. For Germany, climate change has been one of a limited number of international areas where it could demonstrate leadership in spite of its history.

While it was important for both countries that environmental efficiency was taken into account, there was also considerable concern that this should not be at the expense of international competitiveness. These principles and objectives therefore had to be balanced against economic and industrial interests. Similar policy goals in the end led to acceptance of the ETS as a preferred policy instrument.

5 Conclusions

The EU ETS has not emerged from a vacuum. The idea of using ET as a policy instrument was inspired by the international climate regime and subsequently pioneered by the EU, which has successfully influenced the policy contexts within EU member *and* non-member states alike.

We have pointed out that pressure from national and international forces shaped policy instrument choice in Norway and Germany. We found that bargains struck among interest groups and governments were important in defining national interests, and that the EU through the common market was (and is) vital in forming these interests in both Norway and Germany. Not only were international factors like the Kyoto Protocol and global competitiveness significant, but the development of the EU as an ever-expanding political and economic union has been an international force that neither European country could afford to ignore.

Despite the structural differences between the countries, EU influence has presented ETS as the most cost-effective policy instrument for Germany and Norway to meet their Kyoto commitments. Norway started off being enthusiastic about an international ETS under the Kyoto Protocol at a time when Germany was openly against it. The former had supported the concept of flexibility mechanisms in the international negotiations as early as 1991, while the latter remained deeply entrenched in its command and control policy orientation until the close of the decade. When the EU changed its position in light of events at Kyoto, it caused a policy transfer in Germany. Norway, meanwhile, has moved from a position where it promoted a comprehensive and flexible international ETS to one where it has adapted to the EU ETS to protect its national interests. Hence, the EU has restricted Norway's ability to shape its own domestic policy.

When the EU initiated the Proposal for a Directive on ETS in 2001, it helped chart the course for domestic climate policy debate in Germany and Norway. Developments at the EU level reshaped national political and economic landscapes, and redefined domestic and international interests. Now that the scheme has been approved, the established trading system represents a vehicle for the EU, Germany and Norway to reach their broadly common climate policy goals. As highlighted in our analytical framework, the development of national ETSs can best be described as a policy instrument transfer. Our conclusion is that the dynamic interaction of national factors, international forces, and EU influence has changed perceptions towards ET as a policy tool in both Germany and Norway.

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