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Germany's Experience with the Introduction of the EU Emissions Trading Scheme: Lessons for Japan

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Germany's Experience with the Introduction of the EU Emissions Trading Scheme: Lessons for Japan

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Abstract

This paper examines the process to lead the adoption of the EU directive on establishing a scheme for greenhouse gas emission allowance trading within the Community, in order to identify the reasons for Germany to agree on the adoption, despite of the expected friction caused by the shift from its existing national measures, especially voluntary declaration, to the EU wide emissions trading scheme. Through the examination, the institutional and political factors at the EU level, including the adoption procedure of environmental directives and the supports expressed by other member states to the introduction of emission trading, were identified as main reasons for the German agreement on the adoption of the directive. Since Japan does not face the regional pressures as Germany did, it could face much more difficulty with introducing domestic emissions trading. However, the EU emissions trading scheme itself could pressure Japan to establish its own emissions trading scheme in order to exert influence on the design of the international one. Furthermore, Germany's experience highlights the risk that Japan could be forced to agree on a scheme that does not reflect its interests, if it does not form a unified position on a workable emissions trading scheme with stakeholders as soon as possible. As a result of this research, the most crucial lesson to be learned from Germany's experience, for Japan, is the importance of launching a multi-stakeholder dialogue as the first step in considering the establishment of its own domestic emissions trading scheme, while preparing for international emissions trading at the same time.

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Keywords; EU emissions trading (EUETS), climate policy, the Kyoto Protocol, Germany,

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1. Introduction

After three-and-a-half years of intensive discussions, on October 13, 2003 the European Council and Parliament signed Directive on establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC (hereinafter, EU ET directive). It officially came into effect on October 25, 2003.

The European Union Emissions Trading Scheme (EU ETS) covers more than 12,000 installations across the EU, corresponding to approximately 46 percent of total EU carbon dioxide (CO_2) emissions. According to the directive, installations must first register for a *permit*—a discharge license—under which operators need to fulfil certain requirements, such as establishing a system to monitor and record their CO_2 emissions. The companies then receive a certain amount of *allowances*, which are determined by the rules set in their home country's National Allocation Plan. If companies emit more than their allocation, they will need to purchase allowances to balance the excess in place of reducing their own emissions. Conversely, if their emissions are below the set allocation then they can sell the surplus on the open market. Therefore, emissions trading optimises the cost of reduction and provides incentives to countries and companies to develop and introduce reduction technologies. Moreover, the total amount to be allocated to companies participating in the scheme is controlled at a level set in advance; therefore, it is a very effective way to achieve the targets set in the Kyoto Protocol.

While the introduction of emissions trading brings benefits, there are still difficulties and obstacles to overcome, such as in determining allocations to individual installations as well as making adjustments with already existing reduction measures in different countries. Germany, especially—which has mitigated emissions in its industrial sector through voluntary approaches since 1995 and succeeded in reducing CO_2 emissions in the sector by 23 percent by 1999—was expected to face significant internal friction caused by the shift from existing national policies and measures to the EU-wide emissions trading system.

Nevertheless, the directive was adopted with unanimity at the European Council. It is of interest to know why Germany agreed on the introduction of emissions trading scheme despite the expected friction that would be caused by the adjustment of its existing policies and measures.

This paper aims to identify the factors involved in Germany agreeing on the directive, by deconstructing the EUETS directive-making processes, with a focus on the change in Germany's position over time.

2. Hypotheses and methodologies

This paper aims to explore the question of why Germany ended up agreeing on the adoption of the ET directive. To do so, the following questions should be answered:

A. What was Germany's position over the course of the ET directive discussion processes at the EU level? Did it support the directive from the beginning or change its position in the course of discussions?

B. Why did Germany take these positions?

The following hypotheses are posited to answer these questions:

A'. Although Germany was not in favour of introducing the emissions trading scheme when the discussion first started, in the end it finally agreed on adoption of the directive.

B'. At the beginning, German industries, with the support of Germany's Ministry for Economics and Labour—the Bundesministerium fuer Wirtschaft und Arbeit (BMWA)—wanted to continue with more flexible reduction measures (namely, voluntary approaches), and they opposed the introduction of an emissions trading scheme at the national level. Reflecting the opinion of its internal majority, Germany opposed the introduction of emissions trading at the EU level. In the course of the discussions on emissions trading, however, its industry sector as well as the ministry came to better understand the value of emissions trading as an effective emissions reduction instrument. As a result, support for the introduction of emissions trading within Germany increased (figure 1), which eventually brought about its agreement at the EU level on adoption of the directive.

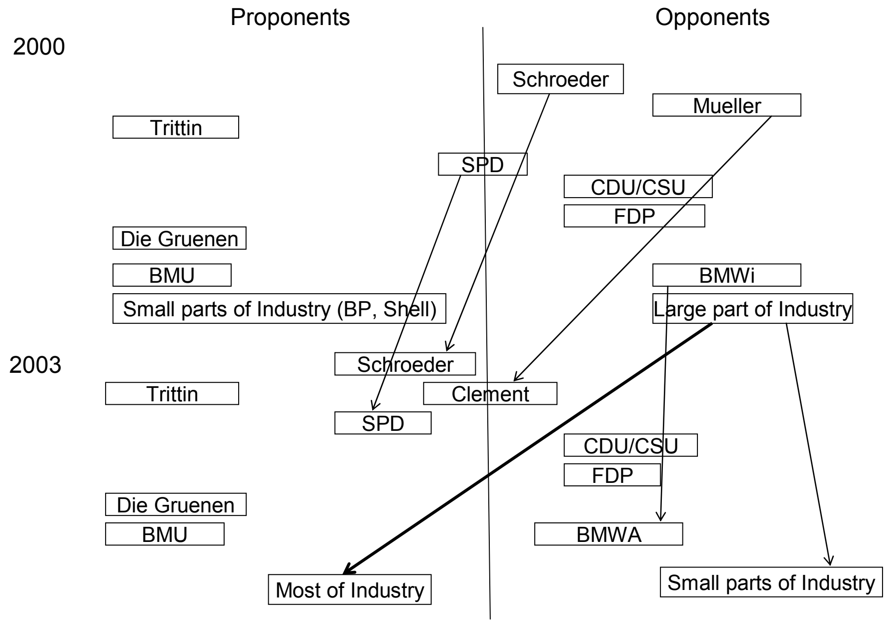

Figure 1. Hypothesis on the change of stakeholders' positions in Germany over time

In order to examine the above questions and hypotheses, the following three parts must be examined:

(1) The first part is EU climate policies and measures and key principles used to develop policies at the EU level (see section 3). This provides a basis to understand the background of discussions on emissions trading and the EU policymaking process. Especially, the article to submit a proposal based on and the subsidiarity principle are the important factors that explain the early adoption of the ET directive.

(2) The second part deals with the ET directive-making process at the EU level (see section 4), with the goal of examining Germany's position at the EU-level discussions. Interviews were conducted with EU as well as German stakeholders in order to highlight the key issues and stakeholders' positions in the course of discussions.

(3) The third part analyses discussions within Germany on emissions trading in order to identify the conditions that evolved for Germany to agree on the adoption of the ET directive (see section 5). Here also, intensive interviews were conducted with both EU and German stakeholders.

In the conclusion, the above question will be re-examined (see section 6) and some lessons will be extracted for Japan to consider, based on the German experience, in the introduction of emissions trading (see section 7).

As mentioned above, interviews with individuals involved in the process of developing the EU ETS played a significant role in this research. In order to examine the hypotheses objectively, a review was first conducted of existing literature that dealt with the factors involved in the EU promoting climate policies. A list of factors drawn from this review was attached to questionnaires as a sample. Interviewees were asked to explain their positions in the dialogue and negotiation processes, divided into a couple of stages, and their reasons for selecting those positions, while referring to the sample. All interviews were conducted from February 23, 2004, to March 19, 2004. In this paper, only affiliations are listed.

Following is a list of factors motivating the EU that were drawn from the literature review:

- The desire to play a leading role in international climate policy as the European Community (Jachtenfuchs 1996; Obertuer and Ott 1999; Grubb and Gupta 2000)
- To respond to growing awareness on climate issues among EU citizens (Collier 1997a)
- To expand influence within the Commission (against other Directorates-General) (Jachtenfuchs 1996; Collier 1997a)
- To prevent other Directorates-General from expanding their influence within the Commission (on the analogy of 3)
- To expand the general influence of member states (more supranational direction) (Heritier et al. 1996; Majone 1996)
- To prevent the EC from exerting more influence on member states (on the analogy of 5)

- To promote the EU common and coordinated climate policies and measures to achieve the EC target committed to in the Kyoto Protocol (Collier 1997a, 1997b; Jachtenfuchs 1996)
- To maintain the power to develop climate policies and measures in member states as much as possible (on the analogy of 7)
- To consider the influence on other policies (avoiding market distortions caused by a common market policy, liberalization of the energy market, etc.) (Heritier et al. 1996)
- To establish the first regional emissions trading scheme and standardize it at the international level (Green Paper 2000)
- To consider the establishment of domestic emissions trading schemes in Denmark and the United Kingdom (Green Paper 2000)
- To avoid the friction caused by the adjustment of existing policies and measures (Heritier et al. 1996; Collier 1997a)
- To consider the merits of industries (increase of environmental technologies exports, competitiveness within the EU, the accumulation of experience with emissions trading, etc.) (Heritier et al. 1996)
- To consider the demerits of industries (the competitiveness with countries outside the EU, merit of Standort) (Heritier et al. 1996)
- To achieve the German target set in the burden sharing agreement (on the analogy of 7)
- To consider the German people's awareness of the climate change issue (Beuermann and Jaeger 1996)
- To reduce emissions reduction costs (efficiency as an instrument, scale merit) (Green Paper 2000)
- To expand its influence within the EC in relation to other member states (to play a

leadership role on environmental policy and standardize its own regulations within the EU) (Heritier et al. 1996)

3. EU climate policy and its key principles

3-1. The development of EU climate policy

The climate change issue was first addressed at the EU level as an item for research in December 1979, when the Council decided to adopt a multi-annual EU research programme in the field of climatology (Liberatore 1994). Up until 1988, climate change was regarded as a scientific issue (Jachtenfuchs and Huber 1993).

Awareness of the climate change issue had been increasing tremendously at the international level in the late 1980s, as was the number of conferences, such as those at Villach, Belagio, and Toronto. Against this backdrop, in 1988 the EU Commission submitted its "Communication to the Council on the Greenhouse Effect and the EU" (COM [88] 656 final). Further, an ad hoc committee was established in 1989 containing ten Directorate-Generals (DG), including DG XII (Energy) and DG XXI (Taxation), reflecting the cross-cutting character of the issue.

On October 29, 1990, the Energy and Environment Council of Ministers agreed to reduce CO_2 emissions to 1990 levels by the year 2000 for the EU as a whole, as part of the EU strategy to limit CO_2 emissions and improve energy efficiency (COM [92] 226 final).

In order to realize this agreement, among the items included in the 1992 official communication, titled "A EU Strategy to Reduce CO_2 Emissions," was a framework directive on energy efficiency (SAVE), a directive on energy/carbon tax, a decision concerning specific actions for greater penetration of renewable energy resources (ALTENER), and a decision concerning a mechanism for monitoring EU CO_2 emissions and other greenhouse gases. However, this strategy was not implemented as planned. For instance, a CO_2/energy tax was blocked after long discussions due to opposition from industries and a couple of member states.[2] Industries were

[2] Different from environmental directives, tax directives need to be adopted with unanimity at the Council. Therefore, if one member state does not agree on adoption, it can be blocked.

concered about a negative impact of the tax on their competition with other industrialized countries. Some member states shared the above concern with industries. The United Kingdom opposed to the introduction of a CO_2/energy tax, arguing that the competence to levy the tax must be left in member states' soveregnity (Zito, 2002). The SAVE programme turned out to be an ineffective framework directive, and ALTENER continued to be under resourced and mainly consisted of non-binding targets (Collier 1997a, 1997b; Grant et al. 2000; Jachtenfuchs 1996).

A number of academics observed that the failure to develop an effective climate policy at the Community level resulted in the re-nationalization of climate policy (Collier 1997a, 1997b; Grant et al. 2000; Jachtenfuchs and Huber 1993; Jachtenfuchs, 1996).

In fact, some member states—including Germany, the Netherlands, United Kingdom (UK), France, and Denmark—developed voluntary approaches in order to mitigate emissions from their industrial sectors. These countries also introduced a carbon/energy tax at the country level. The United Kingdom and Denmark also initiated domestic emissions trading schemes.

A review of existing literature raised the following reasons to explain the failure of the EU to exert more influence on climate policy at the Community level: the EU's subsidiarity (Sbragia 2000), the adoption process of tax policy (Jachtenfuchs 1997), and the difficulty in adjusting to the interests of various stakeholders at three or four different decision-making levels (Grant et al. 2000; Haigh 1996; Jachtenfuchs and Huber 1993; Sbragia 2000; Wallace 2000).

3-2. The subsidiarity principle

Was the subsidiarity principle an obstacle to the adoption of the EUETS? This principle is a concept defined in article 5 of the Treaty Establishing the European Community as follows: "The Community shall act within the limits of the powers conferred upon it by this Treaty and of the objectives assigned to it therein. In areas which do not fall within its exclusive competence, the Community shall take action, in accordance with the principle of subsidiarity, only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore, by reason of the scale or effects of the proposed action, be better achieved by the Community. Any action by the Community shall not go beyond what is necessary to achieve the objectives of this Treaty."

This principle was introduced in terms of environmental policy, based on the 1986 Single European Act (article 174), where it said that "the Community shall take action relating to the environment to the extent to which the objectives (to preserve, protect and improve the quality of the environment) can be attained better at the Community level than the level of the individual Member States."

The 1993 Maastricht Treaty expanded the principle to all Community activities, stating that "[t]he Community shall take action, in accordance with the principle of subsidiarity, only if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the Member States and can therefore be better achieved by the Community" (article 3 TEC [3b TEC]).

The description in article 3b was very vague, and much remained to be worked out in practice (Collier 1997a, 1997b; Weale et al. 2000).

In terms of climate policy, EC member states are obliged as Parties of the United Nations Framework Conventions on Climate Change (UNFCCC) to draw up greenhouse gas (GHG) emissions reduction programmes. Under the subsidiarity principle, this could be considered sufficient to ensure the achievement of the policy objectives, without a need to develop the measures at the EU level (Collier 1997a, 1997b).

The development of common and coordinated climate policies at the EU level, however, was being gradually requested, even under the principle, for the following reasons:

(1) There are discrepancies among member states regarding their attention to the climate change issue; some would not take any effective actions without measures being enforced by the EU.

(2) The European Community signed the Kyoto Protocol and committed to reducing GHG emissions by 8 percent relative to 1990 levels (between 2008 and 2012), making it necessary for the Community to develop climate policies and measures to ensure compliance.

(3) With regards to the economic instrument, it is necessary to be developed and implemented at the EU level from the perspective of economic competitiveness and the functioning of the internal market (COM [2000] 88 final).

3-3. The co-decision procedure: The qualified majority voting rule

The official article used to submit the proposal is another important factor determining its adoption. In the case that the proposal is submitted as an environmental issue based on TEC 251 and 175, the Council then adopts the directive under the qualified majority voting rule, based on the co-decision procedure, described in figure 1. Under the qualified majority voting rule, 62 votes out of a possible 87 votes (Belgium, 5; Denmark, 3; Germany, 10; Greece, 5; Spain, 8; France, 10; Ireland, 3; Italy, 10; Luxemburg, 2; Netherlands, 5; Portugal, 5; United Kingdom, 10; Austria, 4; Finland, 3; Sweden, 4 [87 in total) constitute a qualified majority, and 26 a blocking minority. This means that the five larger states cannot outvote the smaller seven, and also that two large states cannot by themselves constitute a blocking minority. On the other hand, in the case where the proposal is submitted as a tax policy, then unanimity is necessary for adoption (TEC 93). Therefore, if one country votes against the proposal, it cannot be adopted. As described later, it was very important to the leading of early adoption of the ET directive that the proposal was submitted based on TEC 175, as an environmental directive, despite the fact it is an economic instrument as a CO_2/energy tax.

4. Discussions on the ET directive at the EU level

4-1. Start of discussions on the EU ETS directive: Submission of the Green Paper

Discussion on the establishment of an emissions trading scheme within the Community started in May 1998, when the official communication from the Commission to the Council and the European Parliament, titled “Climate Change—Towards an EU Post-Kyoto Strategy,” was submitted (figure 2). This communication mentioned flexible mechanisms and emissions trading (COM [98] 353).

In the autumn of 1998, the Environment Directorate-General (Environment DG) of the European Commission decided to ask the Foundation of International Environmental Law and Development (FIELD) to conduct a commissioned work to prepare for starting discussions on establishing an emissions trading scheme within the Community. FIELD established a working group with the Center for Clean Air Policy (CCAP) and started conducting a survey in January 1999.

In May 1999, the Commission Communication to the Council and the Parliament, titled "Preparing for Implementation of the Kyoto Protocol" (COM (99) 230), was submitted to the Council and to the Parliament. It said, "[T]he Commission is considering to organize a broad consultation of all stakeholders on the basis of a Green Paper in the year 2000, on the implications of emissions trading in the EU. If appropriate, the establishment of an emissions trading system within the Community by the year 2005 could be envisaged" (COM [99] 230).

After the submission of this official communication, FIELD held a first workshop on July 8, 1999, and a second on December 8, 1999, to examine the issues involved in establishing an emissions trading scheme with all relevant EC directorate-generals and other stakeholders.

Reflecting the results of discussions at these workshops, FIELD submitted a final report on February 22, 2000, titled "Designing Options for Implementing an Emissions Trading Regime for Greenhouse Gases in the EC."

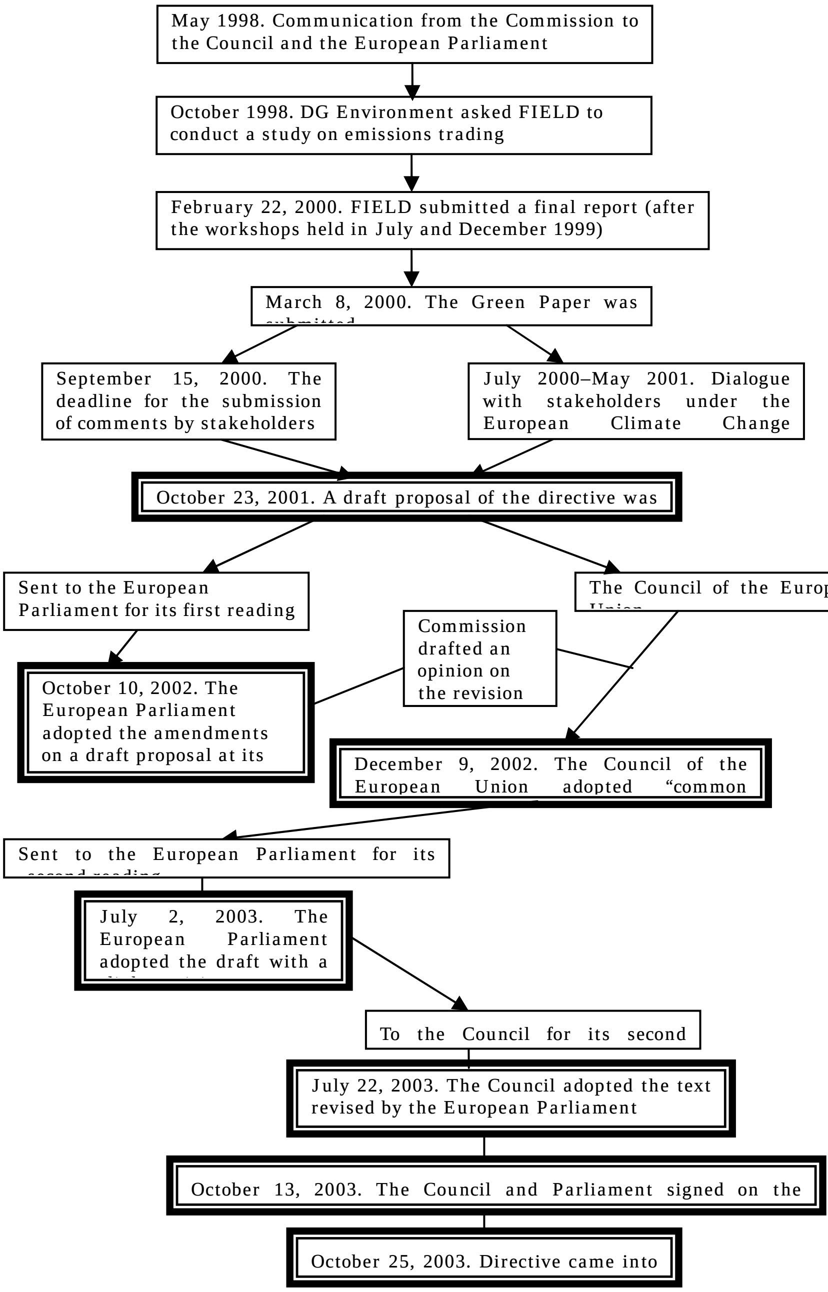

Figure 2. Directive-making process of the EU ETS

On March 8, 2000, less than three weeks after FIELD submitted its final report, the European Commission submitted a Green Paper, a document intended to stimulate debate and launch a process of consultation at the EU level.

The initiative to launch the discussion on emissions trading and to submit the Green Paper was taken by the Environment Directorate-General's Chef de File (head of the file) of climate policy. During the negotiation of the Kyoto Protocol, while the United States argued for the introduction of international emissions trading, the EU was in favour of coordinated policies and measures, and negative about emissions trading. As mentioned in section 3, the EU was aiming to introduce the EU carbon and energy tax, but it failed due to a huge opposition from industries and some member states. Therefore, the EU tried to introduce coordinated policies and measures in the Kyoto Protocol at the international level, with the aim of realizing the introduction of a common CO_2/energy tax at the EU level (Obertuer and Ott 1999; Tanabe 1999; Kameyama 2000).

As a result of the Kyoto negotiations, flexible mechanisms were included, namely, emissions trading, joint implementation, and the Clean Development Mechanism, while it was decided to re-examine the coordinated policies and measures at the COP/MoP 1. The result of international negotiations at COP 3 in 1997 made the Commission recognize the necessity to examine emissions trading. Apart from this, the following were considered as reasons for the Commission to start discussions on the introduction of emissions trading: (1) it was necessary to introduce additional cost-efficient instruments to achieve the target committed as the European Community (DG ENV, DG ENTR, DG ECFIN, DG TREN, CAN, UNICE); (2) it is more efficient and effective to introduce economic instruments, such as emissions trading or taxes, at the Community level, in order to minimize the negative impact of establishing an internal common market; (3) moreover, the United Kingdom and Denmark had prepared for designing their own domestic emissions trading; however, as mentioned above, establishing a unified internal system is more desirable, rather than having to coordinate different national schemes when establishing an internal common market and for avoiding market distortion (Zapfel and Vainio 2002; Christiansen and Wettestad 2003).

Among these reasons, according to interviews with DG Environment and DG Ecofin (DG ENV, DG ECOFIN), avoiding the establishment of different emissions trading schemes in member states was recognized as important to minimizing negative impacts on an internal common market. This was also apparent in the following paragraph of the Green Paper (COM [2000] 87):

The Commission believes that a coherent and co-ordinated framework for implementing emissions trading covering all Member States would provide the best guarantee for a smooth functioning internal emissions market as compared to a set of unco-ordinated national emissions trading schemes. A Community emissions trading scheme would lead to one single price for allowances traded by companies within the scheme, while different unconnected national schemes would result in different prices within each national scheme. The development of the internal market has been one of the driving forces behind the EU's recent development, and this should be taken into consideration when creating new markets.

After submission of the Green Paper, a discussion was conducted along two tracks: (1) the submission of comments on the paper (with a deadline of September 15, 2000); and (2) a series of dialogue sessions with stakeholders in Working Group 1 "Flexible Mechanisms," established in the framework of communication regarding the European Climate Change Programme (ECCP), which itself was submitted by the Commission on the same day as the Green Paper (COM [2000] 88 final).

Ten stakeholder dialogue sessions were held from July 4, 2000, to May 2, 2001, where issues surrounding the establishment of an emissions trading scheme were discussed (European Commission 2001a). More than 20 organizations participated, including DG Enterprise, DG Taxation and Customs Union, EU member states (Austria, France, Germany, Sweden, United Kingdom), industrial associations at the EU- as well as member states-level (EURELECTRIC, Federation of German Industries [BDI], Chemical Industry Council, UK Emissions Trading Group, Union of Industrial and Employers' Confederations of Europe), and environmental non-governmental organizations (NGOs) (CAN, WWF, FIELD). Although a few stakeholders were well informed about emissions trading, such as representatives from the United Kingdom and the European Commission, most had little understanding of it, which resulted in the level of discussion being diverted at the beginning (CAN). In the course of the dialogue process, however, the understanding of stakeholders on the emissions trading scheme improved, which allowed discussions to focus on several outstanding issues, including allocation methods (upstream or downstream, auction and grandfathering, baseline-and-credit or cap-and-trade), targets (relative or absolute), and the flexibility of participation (mandatory or voluntary) (DG ENV).[3][4]

While a series of stakeholder dialogue sessions was held within the framework of the ECCP, more than 90 comments on the Green Paper were also submitted by the deadline (September 15, 2000). It is of interest to note that, while Austria, Belgium, Denmark, Netherlands, and the United Kingdom welcomed the establishment of an emissions trading scheme within the Community, Germany's federal government did not submit any comment at all (European Commission 2001b).

4-2. Interservice consultation on a draft proposal on an emissions trading scheme

DG Environment launched a drafting process at the end of January 2001 (Lefevere 2002). At the time, international negotiations were in a deadlock. At COP 6 (Part 1), held in November 2000 at The Hague in the Netherlands, the Parties could not reach agreement on the operational details of the Kyoto Protocol. Then, on March 28, 2001, the United States, the largest GHG emitter in the world, announced its withdrawal from the Kyoto regime. Against this background, in order to resolve the situation, the high-level EU politicians recognized the necessity of showing the EU's intention to meet its commitment set in the Kyoto Protocol (Zapfel and Vainio 2002). Environmental Commissioner Wallstrom recommended the Climate Division of DG Environment to submit a draft proposal on establishing an emissions trading scheme within the Community to the European Parliament and to the Council before COP 6, Part 2, in July (ENDS Environment Daily, July 3, 2001).[5] In response, DG Environment finished drafting the proposal on May 31, 2001, and forwarded it to other DGs in order to launch interservice consultations.[6]

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3 Lefevere described the process as effective for helping member states as well as industries to deepen their understanding of the benefits of emissions trading, as well as to achieve general support for the establishment of emissions trading, although their opinions were diverse on detailed points (Lefevere 2002).

4 The differences between mandatory or voluntary participation and optout were regarded by many stakeholders as being that a country, sector, or individual installation can decide whether or not to participate under the voluntary scheme, while they can be exempted under the mandatory scheme if they fulfill certain conditions (DG ENV, BMU, BMWA). Therefore, they thought there was little difference between the two in reality.

5 ENDS Daily (http://www.environmentdaily.com) reported that Commissioner Wallstrom intended to submit a draft proposal on emissions trading before COP 6, Part 2, with the hope that proposing concrete provisions for a trading scheme at this stage, even if only in a draft form, would enhance the EU's drive at Bonn to reach an agreement on the operational details of the Kyoto Protocol (ENDS Daily, July 3, 2001).

6 According to officials of the DG Environment, another commissioned work was conducted by FIELD in

Despite the efforts of DG Environment, the proposal did not lead to agreement at the working level. It was held back without being forwarded to the Chef de Cabinet for the following reasons: (1) some DGs did not agree on the condition of mandatory participation in the scheme starting from the first period; (2) the right to design the allocation method to be used under the scheme was left to member states, and there was concern that this would give rise to market distortions; (3) and the interaction between the EU's ET directive and the existing Integrated Pollution Prevention and Control (IPPC) Directive was not clear in the area of issuing emission permits to installations (UNICE, DG ENV).

After the failure to submit a draft proposal before COP 6, Part 2, DG Environment hosted stakeholder meetings with industry and NGOs on September 4, 2001, and then with EU member states and EEAs, as well as new entrants on September 10, in order to exchange views on emissions trading and to prepare for submitting an official proposal before COP 7 in Marrakesh (October/November). Throughout the consultation the question of flexibility of participation was the outstanding issue.

Germany's federal government submitted its position paper for the stakeholder consultation to the European Commission on September 10. In the paper, Germany said that it had already achieved an emissions reduction of 18.5 percent, and it emphasized the effectiveness of its existing policies and measures. It proposed that a pilot phase be conducted in which interested companies could participate, since it was not clear whether coordinating between existing measures and a new emissions trading scheme was feasible or not. It also proposed that the decision to participate in emissions trading should rest with each member state (Federal Government 2001).

Based on the results of the consultations, DG Environment submitted a revised proposal to other DGs for interservice consultation. During the interservice consultation, the flexibility of the participation in the scheme, namely the inclusion of sector-based opt out was the most contentious issue. In the end, the draft on establishing a GHG emissions trading scheme within the Community, which did not include the optout clause, was adopted with unanimity at the

2000 to develop the draft proposal that was handed in on May 7, 2001.

interservice consultation and was submitted to the EU Parliament and the Council on October 23, 2001.

Most member states welcomed the introduction of emissions trading as a cost-efficient instrument to achieve the reduction targets allocated to member states in the burden sharing agreement, in order to achieve the 8 percent reduction target that the EU committed to in the Koto Protocol. However, Germany did not welcome the submission without an optout clause, since the introduction of emissions trading with mandatory participation would cause friction with its existing voluntary agreement with industry. This position was confirmed by the interviews with the EU and German governmental stakeholders (DG ENV, DG TREN, DG ECOFIN, DG ENTRE, BMWA, BMU).

4-3. Submission of the draft directive—Discussion at the European Parliament

On November 21, 2001, an official written proposal (COM [2001] 058) was forwarded to both the European Parliament and the Council.

At the first reading of the European Parliament, the Committee of Environment, Public Health, and Consumption appointed Jorge Moreira da Silva, from Portugal, as rapporateur, and adopted more than 100 amendments by a vote of 39 to 7. The amendments were adopted at the plenary of the European Parliament on October 10, 2002 (European Parliament 2002a, 2002b). With the adoption, a draft proposal of the directive on the establishment of emissions trading passed its first reading.

There were still outstanding items, however, on the issues of optout, optin, auctioning, gas coverage, and sector coverage, the cap on the total amount for member states to allocate to installations participating in the ET scheme, as well as the flexibility of participation.

Although the MEPs are the direct stakeholders who can vote in the Parliament, member states and other stakeholders, including industry and NGOs, usually tried to exert their influence on the discussions.

Germany, the United Kingdom, and Finland tried to include the optout clause in order to protect their national interests. Evidence of this can be seen by the fact that the MEPs who proposed amendments for including optout were from those countries. David Robert Bowe (Group of the Party of European Socialists, and a member of the UK Labour Party), Robert Goodwill (from the Group of the Party of the European People's Party [Christian Democrats] and European Democrats, as well as a member of the Conservative and Unionist Party in the UK), Eija-Riitta Anneli Korhola (Group of the European People's Party [Christian Democrats] and European Democrats, Finland), and Karl-Heinz Florenz (Group of the European People's Party [Christian Democrats] and European Democrats, and a member of the Christian Democratic Union [CDU] in Germany) proposed an amendment that for a three-year period, beginning in January 2005, each member state shall decide whether or not to participate in the scheme for Community GHG emission allowances trading (amendment 62, 63)(European Parliament 2002c).[7] Bernd Lange (Group of the Party of European Socialists, and a member of the Social Democratic Party [SPD] in Germany) also proposed an amendment that would allow member states to decide on which installations or sectors would participate in emissions trading, but those that did not take part would be subject to comparable climate protection measures (amendment 64) (European Parliament 2002c).

Despite these proposals, the amendment on optout that was finally adopted by the Parliament at its first reading was limited. It allowed member states to apply to the Commission to temporarily exclude certain installations from the EU emissions trading scheme until December 31, 2007, with the following conditions:

(1) Any such application shall list each such installation and shall be published.

(2) Requests for temporary exclusions by a member state need to be approved by the Commission.

(3) The installations (a) must limit their emissions, as a result of national policies, as much as

[7] European Parliament, PE.232.374/26.338, Eija-Riitta Anneli Korhola, Francesco Fiori, Karl-Heinz Florenz, and Robert Goodwill also proposed an amendment to allow member states to decide on voluntary participation in the scheme (amendment 278).

> would be the case if they were subject to the provisions of the directive; (b) they are subject to monitoring, reporting, and verification requirements equivalent to those provided for pursuant to articles 14 and 15; and (c) they are subject to penalties at least equivalent to those referred to in article 16(1) in the case of non-fulfilment of national requirements (amendment 50, article 23 a [new]) (European Parliament 2002d).

In addition to optout, optin was included and the penalty was reduced (amendment 50, article 23 a [new]) (European Parliament 2002d).

4-4. Discussion in the Council at its first reading—Adoption of the Common position

After the submission of the official proposal by the Commission, while the European Parliament discussed the proposal at its first reading, the Council also discussed it five times. At the Council, the flexibility of participation, optin, allocation method, and the fungibility of credits issued from project mechanisms were outstanding issues (DG ENV, ENDS Daily [October 17, 2002]). Among these, the flexibility of participation was particularly contentious.

Denmark, which held the Presidency of the Council at the time, tried to develop a proposal for leading a compromise, with the support of DG Environment. This proposal allowed optout only for the installations listed in National Allocation Plans and approved by the Commission, which was almost the same as in the final directive. The Netherlands, Sweden, Austria, Portugal, and Belgium—who were in favour of the introduction of emissions trading as a cost-efficient instrument to achieve the EU's emissions reduction target—supported the Danish proposal. The United Kingdom wanted a scheme that left application of the optout clause to the discretion of member states, without the involvement of the Commission. Therefore, the point on approval by the Commission was a problem for the UK, but the installation level of optout was not. Both Germany and Finland continued to argue for sector-level optout and were opposed to Denmark's proposal (DG ENV, DG TREN, and DG ENTR).

The EU stakeholders regarded Germany's opposition as a big obstacle to the adoption of the Common position (DG ENV, DG ENTRE, CAN), although it could still be adopted without

Germany's agreement under the qualified majority voting rule, as explained in section 3.3. Nevertheless, if member states were made responsible for the adoption and implementation of directives that other member states, especially the large ones, did not agree with, then there could be difficulties at the implementation stage. This is why the Council always tries to adopt the Common position with unanimity.

Facing the possibility that the Common position on emissions trading would be adopted without its agreement, Germany took the strategy to not oppose its introduction directly but instead proposed voluntary participation and sector-level optout. It did this in order to allow the co-existence of emissions trading and voluntary approaches for member states that had already implemented reduction policies and measures, and which had succeeding in reducing GHGs emissions. Both ideas could not be included, however, since only sellers would participate in trading if voluntary participation and sector-level optout were allowed, which would result in no transactions. Finally, at a very late stage in Council discussions, Germany proposed pooling. The type of pooling that Germany originally proposed was the mandatory kind, in which member state's government would appoint installations or companys to pool their allowances, and an organization or company appointed as a trustee would take all responsibility over allowances (DG ENV, DG ENTR, BMU, BMWA, Verband der Chemischen Industrie eV (VCI), BDI, Kanzleramt).

This idea was not accepted for legal and political reasons. Legally, the mandatory pooling would infringe on EU law (cartel law). Politically, the Commission, as well as other member states, did not support Germany's position for the following reasons: first, such special treatment would cause market distortions; and second, they were concerned that the market would not function without Germany, which is the largest emitter in the EU and regarded as the main seller of allowances (Oeko Institut et al. 2003).

As described above, it was very important to have Germany's agreement on the Common position, and it was aware of this. However, provided that the Common position could be adopted with the qualified majority voting rule and that most member states wanted early adoption, it was impossible for Germany to find a partner and collect the 26 votes needed to block the adoption.

As a result, Germany could not but agree on the proposal drafted by Denmark, which included optout and pooling, but these were different from what Germany had proposed. As such, the Common position was unanimously adopted on December 9, 2002.

4-5. Discussion in the European Parliament at its second reading

After the legal adoption of the Common position by the Council on March 18, 2003, the proposal was forwarded to the Parliament for its second reading (Council of the European Union 2003). The Committee of Environment, Public Health, and Consumption considered the proposal at meetings on April 29 and June 11, and approved the amendments by a vote of 47 to 3. After adoption by the Committee, Mr. da Silva held meetings with senior officials of member states. After acquiring informal agreements on the proposal at the tripartite meeting, the Parliament adopted the proposal, slightly amended, as the Common position at its second reading on July 2, 2003.

The most contentions points were the setting of a cap on the amount of allowances for member states to allocate to industry, clarifying the description of optout for the first period by allowing its application only to individual installations, and introducing the auction from the first period. All these points were included by the Parliament at its first reading but deleted by the Council in the Common position.

4-6. Discussion in the Council at its second reading

On July 22, 2003, the Council adopted the draft proposal amended by the Parliament at its second reading. The directive was signed by both the Parliament and the Council on October 13, 2003, and the EU Emissions Trading Directive came into effect on October 25, 2003.

4-7. Summary

Table 1 summarizes an analysis of the EU-level discussions outlined in this section.

Table 1. Positions of the main stakeholders in the course of the EU ET directive-making process

Point in the process	Issues discussed	Initiative	Direct supporters	Indirect supporters	Direct opponents	Indirect opponents	Germany
Green Paper	Diverse	DG ENV Beejergard	ECFIN		Industry, NGOs		No position
Interservice consultation and submission of official proposal	Flexibility of participation (mandatory or voluntary), harmonized allocation, relationship with the IPPC directive	DG ENV Wallstrom	ECFIN	NGOs	TREN, ENTRE	Industry, Germany, UK	Voluntary participation. The BDI tried to exert influence through DG ENTRE and UNICE
European Parliament	Flexibility of participation (optout), optin, gases, cap on the total amounts for member states to allocate industries. Auctioning	DG ENV Moreira da Silva	EPP ELDR EDD PSE The Greens	NGOs	A part of the EPP	Industry Germany, Finland, UK	Voluntary participation and optout. Tried to exert influence on German MEPs.
Council of the European Union	Flexibility of participation (optout, pooling) optin, auctioning	DG ENV Presidency (Denmark)	UK Netherlands Sweden Austria		Germany, Finland		Voluntary participation, optout, and pooling
European Parliament	Cap on the amounts, auctioning, credits from project-based mechanisms	DG ENV Moreira da Silva					
Council of the European Union	Cap on the amounts, auction, credits from project-based mechanisms						

Based on the analysis in this section, the following was drafted as a reply to question 1 posited in section 2.

The discussion of the EU ET directive, launched under the initiative of the European Commission (mainly DG Environment), was undertaken for the following reasons:

- Although the European Community had signed the Kyoto Protocol and committed to a target, there were many member states whose emissions trend was above their target path. Therefore, the necessity to develop common climate policies and measures was recognized in order to achieve the overall 8 percent target for the EU that was committed to under the Kyoto Protocol.

- Furthermore, the unified emissions trading scheme at the EU level is more efficient, from the perspective of developing the internal market and to avoid market distortions, rather than attempting to coordinate different domestic schemes. Considering that the United Kingdom and Denmark were planning to establish domestic emissions trading schemes, the necessity was recognized for the early introduction of common emissions trading scheme within the Community.

DG Ecofin, as well as DG Trade and Energy, supported the initiative taken by DG Environment, especially for its positive impact on the integration of a common market (DG Tren, DG Ecofin).

Germany did not clearly express its position, however, as shown by the fact that it did not submit any comments on the Green Paper at the beginning of discussions on emissions trading.

Since the stakeholder consultation held in September 2001, Germany proposed the inclusion of voluntary participation, sector-level optout, and pooling with the aim of continuing to use voluntary approaches even after the introduction of emissions trading. However, the voluntary approaches and sector-level optout were not included in the end, since only sellers would participate and the trading system would not function under such a scheme. For legal as well as political reasons, the Commission (as well as other member states) did not agree on mandatory pooling, which Germany had originally wanted to include. Legally, it would infringe the EU cartel law. Politically, such special treatment would cause market distortions, and the system without German industries (expected to be the largest sellers) would not function properly.

Considering that the Common position could be adopted under the qualified majority voting rule and that most member states wanted to adopt it, Germany could not do anything else but agree on the proposal, which included installation-based optout and pooling, although this was different from what it had originally wanted and would not allow it to continue with its preferred voluntary approaches.

The above analysis shows that Germany tried to include schemes that would allow it to continue using voluntary approaches, even after the introduction of emissions trading at the EU-level discussions, but it had to change its position due to institutional as well as political factors at the EU level.

Did the change in Germany's position reflect changing conditions required for Germany to agree on the adoption of emissions trading? In the next section, internal discussions in Germany will be examined in order to identify the conditions that evolved for German agreement on the adoption.

5. Discussions on emissions trading in Germany

5-1. German climate policy to mitigate emissions from its industrial sector

Germany first addressed the reduction of GHG emissions from its industrial sector by employing voluntary approaches. The introduction of voluntary approaches had been considered in Germany since the beginning of the 1990s in response to discussions on the introduction of a CO_2/energy tax at the EU level, but was not introduced because agreement was not reached between the government and industries. In 1995, prior to COP 1 in Berlin (March 28 to April 7, 1995), Germany's Chancellor Helmut Kohl and Environment Minister Angela Merkel requested German industries to voluntarily set CO_2 reduction targets, in order to show Germany's willingness to address the climate change issue as the host of COP 1.

In response, the federation of German industries (BDI) announced a voluntary commitment on March 18, 1995, with the target of "up to minus 20 percent" with the expectation that the government would refrain from introducing additional measures, including any waste management and energy audit ordinances. The agreement covered about 80 percent of CO_2 emissions from the industry and energy sector.

The agreement was criticized for the fact that the target would not reflect a real reduction potential and would be reached only by energy efficiency improvement at installations and buildings in new Laender, since the base year was set as 1987, the year before Germany's reunification. In response, it was amended the following year by deleting the words "up to" in front of 20 percent, revising the base year from 1987 to 1990, and introducing monitoring by a third party—the Rheinisch-Westfaelisches Institut fuer Wirtschaftsforschung (RWI).

Following the BDI announcement, the federal government announced that it would refrain from introducing any additional measures.

The third monitoring report published by the RWI in 2000 revealed that the BDI had already achieved its target. It had improved its relative energy efficiency and reduced its relative CO_2 emissions by 23 percent in 1999 compared to the 1990 level (Buttermann and Hillebrand 2000). Supported by this success, the BDI published its agreement with the federal government on November 9, 2000, following up the federal government's publishing of its fifth climate protection programme on October 18, 2000. In the agreement, German industry aimed at a 28 percent reduction in specific CO_2 emissions by 2005, and a 35 percent reduction in specific emissions for the six greenhouse gases (carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulphur hexafluoride).[8] Chancellor Gerhard Schroeder, Environment Minister Juergen Trittin, and Economy and Technology Minister Werner Mueller signed the agreement as representatives of the federal government, and the BDI, Bundesverband der deutschen Gas- und Wasserwirtschaft (BGW), Verband der Elektrizitaetswirtschaft (VDEW), and Verband der Industriellen Energie-und Kraftwirtschaft (VIK) signed as representatives of industries. It was different from the previous declaration, however, in which the federal government announced it would refrain from introducing additional measures after the BDI declared its commitment.

This agreement reveals the intentions of the German government and industry, as of October 2000, to continue into the future in utilizing voluntary approaches as the main instrument to reduce GHG emissions in the industry and energy sector.

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8 For the 1995 and 1996 declarations, after the BDI published them, the federal government announced that it would refrain from introducing additional measures on condition that industry reduces its CO_2 emissions according to the declaration. For the 2000 revision, representatives of industrial associations (BDI, BGW, VDEW, and VIK) and Chancellor Schroeder, Federal Environment Minister Trittin, and Federal Economic Minister Mueller signed the declaration.

5-2. *Establishment of the AG Emissionshandel*

Responding to discussions at the EU level, the German government established a working group called the Arbeitsgruppe Emissionshandel (AG Emissionshandel, or AGE) within the framework of its fifth climate protection programme.

At the beginning, federal ministries (BMU, BMWi, BMF, BMI. Kanzler amt, and UBA), state governments, political parties, industries (BP, Shell, BASF, Ruhrgas, RWE, EnBW, Veag, Daimler Chrysler, Degussa, Gerling, Deutsche Telekom, HEW, Babcockborsig, ABB, Alstom Power, Ford, BMW, Thyssen-Knupp, KfW), industrial organizations (BDI, VDEW, WvStahl, BdH, DIHT, BGW, VCI, Verein Deutscher Zementwerke), and environmental organizations (Germanwatch, WWF, DeutscheNatureShutzring/Bund) participated in the AGE (AG Emissionshandel 2002).[9]

The Ministry of Environment, Nature Conservation, and Nuclear Safety (Bundes Ministrium fuer Umwelt, Natureschutz, und Reaktorsicherheit, or BMU) took the initiative to establish and chair the AGE,[10] realizing the necessity of sharing information on the discussions being conducted at the EU level and to form a unified German position on issues (BMU, BMWA, Kanzleramt, BDI). BP, Shell, and the insurance and financial sectors, which already had experience with emissions trading or that would obtain benefits from the introduction of emissions trading, supported the BMU's initiative (BP, BMU). Other stakeholders that welcomed the establishment of a discussion group, however, were negative about the introduction of an emissions trading scheme. Industry and governmental stakeholders, apart from the BMU, wanted to continue employing voluntary approaches to reduce GHG emissions. At first, Minister Trittin, the Greens, and environmental NGOs were not in favour of emissions trading, because of concern that emissions trading would give industries an easy way to achieve their targets by purchasing certificates instead of reducing emissions themselves. They changed this position, however, after

[9] In 2002, the number of participants in the AGE increased, since German industries started to take the introduction of the EU emissions trading scheme seriously after the submission. In order to restrict the number of participants for the substantial discussions, in 2002 the AGE established four subgroups: Unterarbeit Gruppe 1 [UAG1] (Other Instruments), UAG2 (Allocation), UAG3 (Credits and IPPC Directive), and UAG4 (Credits from JI/CDM Projects).

[10] As the reason for this, they raised the necessity of responding to the discussions on the emissions trading directive at the EU level through sharing information on the EU-level discussions and exchanging views among stakeholders (BMU, BMWA, Kanzleramt, and BDI).

realizing the effectiveness of emissions trading for controlling emissions (Die Gruenen, WWF, BMU, BMWA).

5-3. Discussions in Germany on emissions trading

5-3-1. The Green Paper

Many stakeholders in Germany only became aware of the EU-level discussions on emissions trading when the Green paper was submitted, although the discussion was launched earlier (VCI, VDEW, Bayer, Hydro Aluminum, Verein Deutscher Zementwerke, WWF). Some industries thought that there was little possibility that emissions trading would be introduced at the EU level, even after the submission of the Green paper (VCI, VDEW).

As described in section 5.1, Germany addressed GHG reductions in its industry and energy sector by employing voluntary approaches and had not considered emissions trading. Therefore, internal stakeholders did not have enough understanding about emissions trading, so Germany faced difficulties in forming a unified position. This was regarded as the reason why it did not submit any comments to the Green Paper (DG ENV, DG TREN, DG ECOFIN, BMU, BMWA).

5-3-2. Submission of an official directive proposal

The AGE had eleven meetings in 2001,[11] where various issues on the introduction of emissions trading were discussed, including allocation methods, sector coverage, coordination with existing measures, gas coverage, monitoring and verification, and registry (AG Emissionshandel 2002).

The AGE secretariat was invited to participate when the European Commission held stakeholder consultations in September 2001, after the failure to submit a draft proposal before COP 6, Part 2. The AGE had discussed, since the summer of 2001, whether to express its own position separately from the government and the BDI, if it is the mandate or not of the AGE to submit its own position externally, and if so, what kind of position to submit. After intensive

[11] Including the four AGE subgroups, more than 80 meetings had been held by the end of 2003.

discussions, the AGE submitted its position paper on September 2, 2001 (AG Emissionshandel 2001).

The AGE paper discussed the flexibility of participation, allocation method, greenhouse gas coverage, and sector coverage. Regarding the flexibility of participation, it said, "[I]t is too early to determine the introduction of emissions trading at this stage. A three-year pilot phase with voluntary participation should be conducted with incentives for the participation at the EU level. After the implementation of [the] pilot phase, the result of emissions trading should be reviewed. Based on the review, the introduction of emissions trading should be determined." This was along the same lines as a position paper submitted by Germany's federal government. According to participants in the AGE, most stakeholders welcomed the AGE position paper, although the paper itself was a compromise between the opinion expressed by most industries to continue using voluntary approaches and the opinion of a few industries and NGOs to introduce emissions trading (BDI, BASF, Bayer, BP, WWF, Hydro Alminium). Evidence of this is seen in papers submitted separately by the BDI and BASF (BDI 2001).

According to German stakeholders, there was general support from the EU stakeholders for a three-year pilot phase to be used to accumulate trading experience (BMU, BP). Nevertheless, the majority opinion at the EU level supported the introduction of mandatory emissions trading with absolute targets from the beginning. Therefore, there was not much support for the AGE idea of implementing a pilot phase with open results about the continuation of trading.

After the stakeholder dialogues, the Commission submitted an official draft to the Parliament and the Council on October 23, 2001, which did not include the optout clause.

The proposal, without any flexibility on participation, was unacceptable for most industries and governmental stakeholders, including the BMWA, which wanted to continue using voluntary approaches as an instrument to reduce GHG emissions from the industry and energy sector (BMWA, BDI, Bayer, BASF, Hydroaluminium, VDEW). Most member states, however, welcomed the proposal. Considering this situation, both the BMU and the BMWA agreed on a negotiation strategy to not oppose the introduction of emissions trading itself, but to constructively make proposals on the scheme's design that would allow Germany to continue using voluntary approaches (BMU, BMWA). Around this time, the inclusion of proposals allowing the co-existence of voluntary approaches and emissions trading, including voluntary participation and sector-based optout, came to be recognized among German stakeholders as one of the conditions to agree on the adoption of the emissions trading directive.

5-3-3. Discussion at the first reading of the European Parliament

Responding to German stakeholders' desire to include the condition, the German MEPs submitted amendment proposals to include sector-level optout at the first reading. Industrial organizations and individual companies also tried to exert influence on the Commission, MEPs of the European Parliament, and the Presidency, although it is very difficult to evaluate how much their efforts were reflected in discussions in the Parliament. Industrial sectors, companies, and political parties said that their proposals were included if they were in accordance with the MEPs' position, but it was difficult to change the MEPs' position through lobbying (SPD, Die Gruenen, VDEW, BDI).

5-3-4. Coalition agreement in September 2002

On September 22, 2002, a general election of the Bundestag (the first chamber of Germany's parliament) took place. Since there was a tendency to return to conservatism observed in other European countries (including France and the Netherlands), and after a long recession and a serious state of unemployment in Germany, the Christian Democratic Union (CDU)/Christian Social Union (CSU) coalition, led by Stoiber and Merkel, was considered as having the advantage. Nevertheless, severe flooding in Central and Eastern Europe in August 2002 caused environmental issues to regain widespread public attention, which brought out the largest voting rate for die Gruenen (The Greens) at the federal level. As a result, the SPD and die Gruenen formed a coalition government. Die Gruenen acquired a casting vote, which was helpful in strengthening environmental policies in the new coalition agreement.

In chapter 5, "Ecological Modernization and Consumer Protection," of the coalition agreement published October 16, 2002, the SPD and the Bundnis 90/Die Gruenen (Alliance 90/the Greens) coalition basically gave support to the EU ET directive, with the condition that the "EU directive considers the measures taken since 1990 to reduce greenhouse gases, free allocation, compatibility with flexible mechanisms under the Kyoto Protocol, [and] coordination with voluntary declaration, such as legally binding pooling arrangements" (SPD and Bundnis90/Die Gruenen 2002).

As such, the support for the EU ET directive was included in the coalition agreement, but attached with conditions. This shows that Germany did not change its position on the condition of adopting the directive. The stakeholders in Germany, including political parties, as shown above, were saying that the agreement did not show a change in German position, since it was so open and could be interpreted in many ways.

5-3-5. Discussion at the first reading of the Council

Most German industries wanted to continue with using voluntary approaches. Backed by their voice, Chancellor Schroeder, Minister Clement, a Schroeder wing of the SPD, an economic department of Chancellor's office, and the BMWA, tried to include sector-level optout and pooling until the end of the first reading of the Council.

At the same time, Minister Trittin and the BMU, representing Germany at the EU-level negotiations, were in favour of the introduction of emissions trading, along with Die Gruenen and NGOs. Nevertheless, they argued to include sector-level optout and pooling at the EU level to reflect the majority opinion in Germany.

As such, the conditions for Germany to agree on the adoption of the Common position, which was to include proposals to allow the use of voluntary approaches, had not changed up until the end of discussions at the first reading of the Council, even after the introduction of emissions trading.

However, as described in section 4, Germany could not but agree on the adoption of the Common position, which was a far cry from the conditions set for German agreement, due to political and institutional factors at the EU level.

5-3-6. Adoption of the EU ET directive

The adoption of the Common position made stakeholders in Germany realize the early adoption of the directive would occur; therefore, there were few attempts to expand the flexibilities of participation afterwards. The Common position was slightly amended at the second reading of the European Parliament, and the amended proposal was also adopted at the second reading of the Council. Finally, the directive was signed by both the Parliament and Council on October 13, 2003, and went into effect on October 25, 2003.

5-3-7. Analysis of the results in section 5

Table 2 summarizes the discussions conducted on emissions trading in Germany and main stakeholders' positions.

Table 2. German internal stakeholders' positions during the EU ET directive-making process.

Timeframe	Discussion at the EU level	Germany's position at the EU level	Positions of German stakeholders	
			Support	Opposition
1998–March 8, 2000.	Submission of the Green Paper	No position. Industry believed that it could stop the ET directive		
March 8, 2000 – September 2001	Stakeholder dialogue (Working Group 1 of the ECCP) Comments on the Green Paper	No position	• BMU • BMWA (in favour of the introduction of the economic instrument itself) • Parts of industry (BP, Shell, insurance, and financial sectors) • NGOs	• Environment Minister Trittin (sceptical, since emissions trading will provide an easy way for companies to achieve their targets) • Die Gruenen (divided the opinions in the parties [CDU/CSU] [FDP]) • Most industries preferred the continuation of voluntary approaches
June 2001–October 23, 2001	Interservice consultation—Submission of the official proposal	No position→Voluntary participation and optout	• Environment Minister Trittin • BMU • A part of Die Gruenen • A part of SPD • A part of industry (BP, Shell, insurance and financial sectors) • NGOs	• Mueller • BMWA (the continuation of voluntary approaches) • A part of Die Gruenen • A part of SPD • (CDU/CSU) • (FDP) • Most industries: preferred the continuation of voluntary approaches
October 23, 2001–Octobe r 2002	European Parliament	Voluntary participation and optout	• Environment Minister Trittin • BMU • A part of Die Gruenen • A part of SPD • A part of industries • NGOs	• Schroeder • Economic Minister Mueller • BMWA • A part of Die Gruenen • A part of the SPD (CDU/CSU) (FDP) • Most industries
October 23, 2001–Decem ber 2002	The adoption of the Common position at the first reading of the Council of the European Union	Opposition→Volunta ry participation, optout, and pooling	• Environment Minister Trittin • BMU • A part of Kanzleramt • A part of SPD • A part of Die Gruenen • A part of industries • NGOs	• Schroeder • Economic Minister Clement • BMWA • A part of Kanzleramt • A apart of SPD • A part of Die Gruenen • (CDU/CSU) • (FDP) • Most industries

Based on the examination conducted in this section, the change of conditions necessary for German agreement is analysed below.

(1) Germany has addressed GHG emissions reduction in its industry and energy sector since 1995 by using voluntary approaches. Because of this, stakeholders in Germany did not have enough of an understanding of emissions trading and, as such, were not able to form a unified position at the beginning of EU-level discussions on the issue. Most German stakeholders wanted to continue using voluntary approaches as the main instrument to mitigate emissions, and they were against the introduction of emissions trading.

(2) Germany established the AGE under an initiative taken by the BMU, realizing the necessity to share information and exchange views among stakeholders on emissions trading. At the very beginning of discussions, only the BMU and a small number of companies, such as BP and Shell, supported the introduction of emissions trading. At first, Minister Trittin, Die Gruenen, and the environmental NGOs were not in favour of emissions trading, because they were concerned that it would provide industries with an easy way to achieve their targets by simply purchasing certificates instead of reducing emissions at their own installations. Their positions changed, however, after they realized the effectiveness of emissions trading in controlling the total amount of emissions. Still, a large portion of industry stakeholders preferred continuing with voluntary approaches. This position was supported by Chancellor Schroeder, Minister of Economy and Technology Werner Mueller (–2002), Minister of Economy and Labour Wolfgang Clement (–2002), the BMWA, the economic department of the Chancellor's office, and the chancellor wing of the SPD. As such, the majority's opinion in Germany was against the introduction of emissions trading. At the EU level, however, most member states welcomed it. Considering the above, German stakeholders shared the view that the strategy for Germany to follow in the EU negotiations should be not to directly oppose the introduction of emissions trading, but to table constructive proposals to continue using voluntary approaches as the main instrument for mitigating emissions in the industrial sector, including voluntary participation and sector-level optout.

Minister Trittin and the BMU, who were in favour of the introduction of emissions trading, represented the majority opinion in Germany, and they proposed voluntary participation and optout at the EU level as conditions for their agreement. Germany also tried to exert an influence on the discussions at the Parliament, and German MEPs proposed amendments to include optout. The risk, however, was that emissions trading would not function if voluntary participation or sector-level optout were allowed, since only sellers would participate in such a scheme. Therefore, the clauses on voluntary participation and sector-level optout were not included.

Still, German industries wanted to continue using voluntary approaches, and they were backed by Chancellor Schroeder, Minister of Economy and Labour Clement, the BMWA, Schroeder's wing of the SPD, and the economic department of the Chancellor's office. Reflecting the discussions in Germany, Minister Trittin and the BMU maintained the inclusion of pooling as a condition for their agreement, but this was not accepted due to legal as well as political reasons. Since the ET directive could be adopted under the qualified majority voting rule, Germany could not but agree on the adoption of the Common position—including optout and pooling—which were, however, totally different from what Germany had intended. The inclusion of these items provided Minister Trittin, who was in favour of mandatory emissions trading, an excuse to explain the ET directive's adoption to German stakeholders.

(3) As such, the opinion of the majority of German stakeholders was for Germany to agree to the adoption of the ET directive on condition that clauses be included that allow the co-existence of voluntary approaches and emissions trading. This position had not changed up until the adoption of the Common position at the Council's first reading on December 9, 2002 (figure 3).

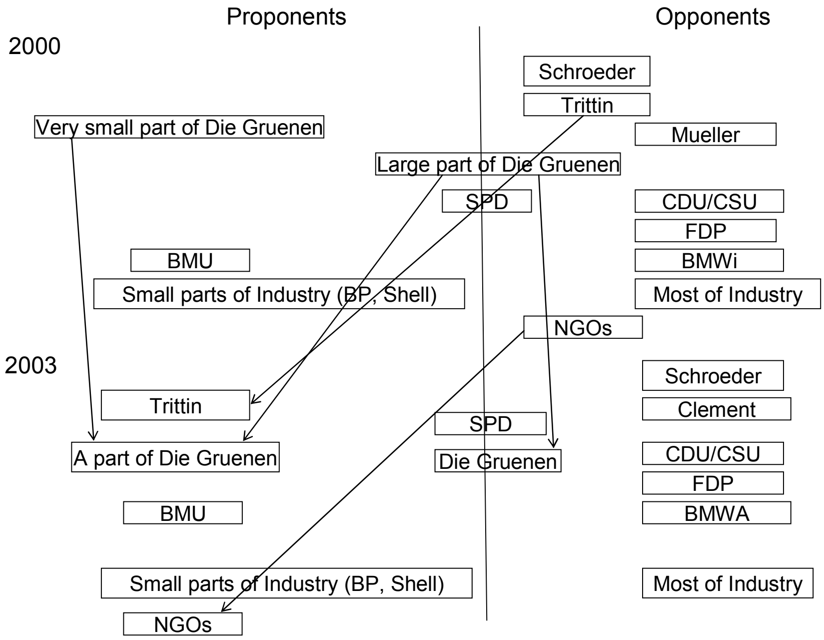

Figure 3. The result of analysis on the change of stakeholders' positions in Germany over time

6. Conclusions: Factors determining Germany's agreement on the adoption of the ET directive

The above analysis reveals that Germany's agreement on the adoption of the ET directive resulted not from a change in position of the majority of German stakeholders on the introduction of emissions trading, but rather because of political and institutional factors at the EU level.

In order to re-examine the analysis, the interviewees were asked about the factors involved in determining Germany's position on the introduction of emissions trading.

Every one of the interviewees raised industries' intention, backed by the BMWA, to continue using voluntary approaches as the main reason for Germany to oppose the mandatory scheme at the beginning of discussions. Other than that, the following reasons for the development of its position were raised:

- The complicated political system (Germany's federal system)
- The difficulty in preparing for emissions trading discussions after the Kyoto conference because of the federal election in Germany and the change of government that took place in the autumn of 1998
- The strong influence of the coal industry, and technology-oriented policies and measures (technical standard, IPPC, BAT, CHP, etc.) influenced by the involvement of a lot of engineers and lack of understanding of economic instruments
- Concern about the limiting of economic growth that the introduction of emissions trading might cause
- Concern about the pressure put on German industries to provide allowances for other member states above their target paths to purchase
- Staff persons hired by the BDI had their own self-interest in the continuation of voluntary approaches in order to secure their employment

On the other hand, among the factors involved in Germany agreeing on the adoption of the ET directive, all interviewees raised two issues: (1) a political factor, whereby most EC member states welcomed the introduction of emissions trading as a cost-efficient instrument to achieve the Kyoto target, and (2) an institutional factor, namely, the qualified majority voting rule under the EU's co-decision procedure. Other factors identified by interviewees include the following:

- The political will existed to achieve the Kyoto target as the European Community. After the declaration of the United States to withdraw from the Kyoto Protocol, on March 27, 2001, the EU environment ministers agreed to ratify the protocol by 2002 and to implement it without the United States. The political will of the environment ministers to achieve the Kyoto target provided a basis to develop effective measures, including the adoption of the ET directive. (Relevant to sample 2.)

- The EU's attempt to make its scheme the de facto standard by establishing the scheme as soon as possible (relevant to sample 10)
- The EU's attempt to play a leading role in international climate policy as the European Community (relevant to sample 1)
- The excellent studies conducted by FIELD (not considered in samples), which provided crucial knowledge to stakeholders that enhanced their understanding of emissions trading
- The individuals (and their affiliations) that led a compromise:
    - EC Presidency (Denmark)
    - German proponents, including Minister Trittin and BMU officers
    - Rapporateur Jorge Morerira da Silva,
    - DG Environment officers
- The personnel changes within the climate change department of the DG Environment: The economic analysis team of the DG Environment was in favour of emissions trading before the 1997 Kyoto conference, while the negotiation team was in favour of the policies and measures. After the Kyoto conference, many of the international team's staff moved to other sectors. It was Mr. Jos Delbeke and Mr. Peter VIS, who had been working for the economic analysis team, that stepped into this vacuum.

The above analysis is summarized in table 4, where it shows that Germany's agreement on the adoption of the ET directive was mainly because of political and institutional factors at the EU level, not because of the change of German stakeholders' support on the introduction of emissions trading. Evidence of this can also be seen by the fact that all interviewees answered "No" to the question, "Do you think that Germany agreed on the adoption of the directive without the discussions at the EU level?"

Table 4. Factors driving Germany to first oppose and then to agree on the introduction of the ET directive

Factors affecting Germany's position	For Germany to agree on the introduction of emissions trading		For Germany to oppose the introduction of the ET directive at the beginning of discussions
Institutional factors	Co-decision procedure and qualified majority voting rule	Institutional factors	Complicated political system (Germany's federal system)
	Excellent study conducted by FIELD		Technology-oriented policies and measures caused by the involvement of many engineers (technical standard, IPPC, BAT, CHP, etc.) and lack of understanding economic instruments
			Staff persons hired by the BDI who had their own self-interest in the continuation of Germany using voluntary approaches in order to secure their employment
Political factors	The political will to achieve the Kyoto target as the European Community	Political factors	Difficulty in preparing for discussions on emissions trading after the Kyoto conference due to the German federal election and the subsequent change of government in the autumn of 1998
	Sample 1: **The EU's desire to play a leading role in international climate policy as the European Community**		
	Sample 18+: • **Politics among member states** • **Political power balance at the EU level**		**Sample 12: Most industries wanted to continue using voluntary approaches to emissions reduction**
	Sample 16: **The existence of German stakeholders, including Trittin and the BMU, who wanted mandatory participation**		
	Sample 9: **To consider the influence on other policies (avoid market distortions from common market policy, liberalization of the energy market, etc.)**		The strong influence of the coal industry
Economic factors	**Sample 10:** **To establish the first regional emissions trading scheme and standardize it at the international level**	Economic factors	**Sample 13:** **Concern about limiting economic growth**
			Concern about the pressure put on German industries to reduce their emissions in order to provide credits for other member states above their target paths to purchase
Individual factors	Skilful EC Presidency (Denmark)	Individual factors	
	Personnel changes within the climate change department of DG Environment		
	Ability, personality, and political party of Rapporateur Jorge Morerira da Silva		

7. Lessons for Japan

This paper examined the question of why Germany agreed on the adoption of the ET directive despite the expected friction caused by the adjustment of its existing voluntary agreement with industry.

Next, lessons for Japan will be extracted for considering the introduction of emissions trading, based on Germany's experience.

In order to extract lessons for Japan, it is necessary to categorize the factors that applied particularly to Germany and the EU case and those that can be commonly applied to Japan, as well as to clarify the differences between Japan and Germany (table 5).

Table 5. Factors to be particularly applied to the EU and to be commonly applied to other countries.

		Factors to be particularly applied in the German and the EU case		**Factors to be applied to Japan as well**
Factors causing Germany to first oppose the introduction of emissions trading (including not forming a unified position), and then changing positions and agreeing to it (including the desire for the EU to succeed in the introduction of ET)	Institutional factors	Co-decision procedure and qualified majority voting rule	Institutional factors	
		FIELD's work		
	Political factors	The political will to achieve the Kyoto target as the European Community	Political factors	
		The EU's desire to play a leading role in the international climate policy as the European Community		
		Politics among member states Political power balance at the EU level		
	Economic factors	The existence of German stakeholders, including Trittin and the BMU, who supported mandatory participation		
	Individual factors	To consider the influence on other policies (avoid market distortions of a common market policy, liberalization of the energy market, etc.)		
		The ability, personality, and political party of Rapporateur Jorge Morerira da Silva		
		Skilful EC Presidency (Denmark)		

The factors causing Germany to oppose the ET directive	Institutional factors	Germany's complicated political system (federal system)	Institutional factors	Technology-oriented policies and measures influenced by the existence of many engineers (technical standard, IPPC, BAT, CHP, etc.) and a lack of understanding of economic instruments
		Staff-persons hired by the BDI who had a self-interest in the continuation of using voluntary approaches to emissions reduction in order to secure their employment		Proper staff hired by Japan Business Federation (the Keidanren)?
	Political factors	The strong influence of the coal industry	Political factors	Most industries wanted to continue using voluntary approaches
		Difficulty in preparing for discussions on emissions trading after the Kyoto conference, due to the federal election and the change of government that occurred in the autumn of 1998		
	Economic factors	Concern about the pressure put on German industries to provide allowances for other member states above their target paths to purchase	Economic factors	Concerns about limiting economic growth

Table 5 reveals that most of the factors influencing Germany to agree on the adoption of the ET directive were those which are particularly applied to the EU, such as the qualified majority voting rule; while the factors influencing Germany to oppose the introduction of the ET directive are shared with Japan. Therefore, it could be concluded that Japan could face much more difficulty with introducing domestic emissions trading.

Having said that, the EU emissions trading scheme itself could pressure Japan to establish its own emissions trading scheme in order to exert influence on the design of the international one, although Japan does not face the same pressures as Germany did from other EU member states to introduce emissions trading.

Furthermore, Germany's experience highlights the risk that Japan could be forced to agree on a scheme that does not reflect its interests, if it does not form a unified position on a workable emissions trading scheme with stakeholders as soon as possible.

While it was difficult for Germany to reflect the intentions of its internal stakeholders at the EU, where the interests of various stakeholders were intertwined, Japan could more easily establish a scheme that would reflect the intentions of its internal stakeholders.

The EU as well as Germany launched discussions on the ET directive with stakeholder dialogue. In Germany's case, at least, this did not bring about an immediate change in their positions, but it was effective for sharing information as well as exchanging views among them.

In conclusion, as a result of this research, the most crucial lesson to be learned from Germany's experience, for Japan, is the importance of launching a multi-stakeholder dialogue as the first step in considering the introduction of its own domestic emissions trading scheme, while preparing for international emissions trading at the same time.

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