KFG The
Transformative
Power of Europe

EMISSIONS TRADING

A Transatlantic Journey for an Idea?

Katja Biedenkopf

No. 45 | September 2012

Freie Universität Berlin

Deutsche
Forschungsgemeinschaft
DFG

EMISSIONS TRADING

A TRANSATLANTIC JOURNEY FOR AN IDEA

Katja Biedenkopf

Abstract

This paper examines the ways in which the EU greenhouse gas (GHG) emissions trading system (ETS) affected the design of similar programs in North America. It investigates the conditions under which EU pioneering policy can play a role in extra-EU jurisdictions' policy-making. The empirical investigation finds that the EU's promotion of emissions trading was successful to some extent. The EU did not influence or trigger the inception of GHG emissions trading programs in North America. The EU ETS, however, played a role in the design process of the North American programs. Actors learned from elements of the EU system. Domestic North American factors were the triggers and drivers of the agenda-setting stage and dominated the policy adoption stage while the EU ETS significantly contributed to the policy formulation processes. The EU ETS played a role at the technical level rather than at the level of political deliberations and decision-making. The EU's policy promotion efforts depended on the demand in North America. The resonance and receptiveness in North America were decisive factors. The EU was not an importunate persuader. Learning from the ETS was to a significant part demand-driven.

The Author

Katja Biedenkopf is Assistant Professor at the University of Amsterdam, The Netherlands and Senior Associate Fellow at the Institute for European Studies at the Vrije Universiteit Brussel, Belgium. In 2011-2012, she was a Postdoctoral Fellow at the KFG 'The Transformative Power of Europe". Her research focuses on the external effects of EU environmental policy and global environmental governance.

contact: k.biedenkopf@uva.nl

Contents

1.   Introduction[1]

This paper examines the ways in which the European Union (EU) greenhouse gas (GHG) emissions trading system (ETS) affected the design of similar programs in North America. It investigates the conditions under which EU pioneering policy can play a role in extra-EU jurisdictions' policy-making. The idea of emissions trading was first implemented in the 1990s in the US for sulphur dioxide (SO2) and nitrogen oxide (NOX) emissions. In the international negotiations leading to the 1997 Kyoto Protocol, the US government pushed for the inclusion of GHG emissions trading but ultimately never ratified the Protocol. In the following years, GHG emissions trading gained support in the EU and became one of the cornerstones of EU climate policy. In the mid-2000s, some US states and Canadian provinces initiated subnational regional GHG emission trading programs. The EU promoted the idea of GHG emissions trading in North America. EU ETS experts from the UK were seconded to California and a number of ETS experts gave presentations to and interacted with actors involved in the design of the North American emissions trading programs. The emergence of the North American GHG emissions trading programs could thus have been the result of the EU's policy promotion but they could also have been the result of the previous domestic experience with SO2 and NOX emissions trading. The study presented in this paper analyzes to what extent the EU's policy promotion efforts were successful and affected policy developments in North America. It provides an answer to the questions: Were North American GHG emissions trading programs affected by the EU ETS? If yes, in what way and under what conditions?

The empirical investigation finds that the EU's promotion of emissions trading was successful to some extent. The EU did not influence or trigger the inception of GHG emissions trading programs in North America. The EU ETS, however, played a role in the design process of the North American programs. Actors learned from elements of the EU system. Domestic North American factors were the triggers and drivers of the agenda-setting stage and dominated the policy adoption stage while the EU ETS made a significant contribution to the policy formulation processes. The EU ETS played a role at the technical level rather than at the level of political deliberations and decision-making. The EU's policy promotion efforts depended on the demand in North America. The resonance and receptiveness in North America were decisive factors. The EU was not an importunate persuader. Learning from the ETS was to a significant part demand-driven. This corresponds to the findings of other recent research on the influence of EU external climate change policies (Torney 2012). North American actors searched for information about the ETS. The supply of lessons learned by EU actors took place in different forms; mostly through presentations and in the case of the Western Climate Initiative through the secondment of EU experts.

This paper aims to make a contribution to literature on policy diffusion and to the emerging field of EU external governance (Knill/Tosun 2009; Lavenex et al. 2009; Lavenex/Schimmelfennig 2009; Schimmelfennig 2009; Kelemen 2010; Damro 2012), in particular to the study of the EU's "leadership by example" and its policy promotion abroad. The analysis provides insights into the processes and conditions of external effects of EU policy in the absence of binding international commitments and coercive pressure. These

processes are based on horizontal direct and indirect interaction between equal partners as opposed to a hierarchical relationship in which the EU could use its leverage, for example in the form of conditionality (Schimmelfennig/Sedelmeier 2004), to coerce a policy change abroad (Knill/Tosun 2009). The US also never ratified the Kyoto Protocol with its binding commitments. Horizontal interaction includes demand-driven processes in which extra-EU actors actively search for lessons from EU policy and the EU remains passive, as well as supply-driven processes in which EU actors actively promote lessons drawn from EU policies. This demarcates the limits of what would be labeled EU external governance. Instances in which extra-EU jurisdictions spontaneously take over EU policy solely based on their own decision and as a result of externalities of EU policy are not considered in the scope of external governance. They are however a substantive part of policy diffusion studies. The concept of EU external governance involves some purposeful involvement of the EU in the diffusion process and can be described as institutionally backed cases of active regulatory export. External influence through networks and diplomatic intergovernmental relations are included in governance because the EU actively engages in these cases (Lavenex 2011). This paper mainly focuses on learning processes since – as shown below – this was found the dominant transfer mechanism in the case of GHG emissions trading from the EU to North American states and provinces. The in-depth analysis of the micro level processes of the transfer of (elements of) the EU ETS contributes to understanding the conditions under which the EU can effectively affect and promote policy developments beyond its borders.

The following section explains the idea of emissions trading and traces the history of its implementation in the EU and North America. Section three discusses the different transfer mechanisms and domestic factors that constitute the analytical framework on which the empirical investigation is based. Section four presents the results of the study and section five concludes with a discussion of the implications of the study for EU external governance more generally.

2.   Emissions Trading

This section provides the background to the study presented in this paper. It first explains the basic parameters of emissions trading programs. Then it traces the history of emissions trading in the US and the EU in a chronological order. Emissions trading was first adopted by the US federal government. The EU took over the pioneering role after the adoption of the Kyoto Protocol. In the mid-2000s, US states and Canadian provinces took on the idea and initiated subnational regional GHG emissions trading programs in the absence of federal rules.

2.1   The Idea of Emissions Trading

The idea to reduce harmful emissions by setting a maximum ceiling for certain emissions and then permitting emitters to trade emission allowances first emerged in the 1960s. The idea can be traced back to the Canadian economics professor John H. Dales. In his 1968 book "Pollution, Property and Price", he laid out

the basic logic of solving pollution problems through trading emissions permits (Dales 1968). He, however, never actively advocated this policy instrument and it took until the 1990s for its first large-scale implementation, which was the US SO2 emissions trading system.

In emissions trading systems a jurisdiction-wide maximum emissions limit is set instead of prescribing limits for each emitter such as production plants. The emitters within the covered territory are assigning emission allowances. The number of allowances in the possession of an emitter must match its actual emissions. Excess allowances can be sold to other emitters or sometimes saved for the future. Excess emissions must be covered by the purchase of extra allowances from other emitters. The allowance price varies according to demand and supply. It is left to the emitters to decide for the economically most viable solution of either buying allowances or investing in emission reduction measures. The choice of reduction measures is free. No specific technologies are prescribed. Emissions trading is a market-based policy instrument whose proclaimed advantages are cost-effectiveness, innovation fostering and flexibility in achieving an overall emissions reduction goal (Tietenberg 2006; van Asselt 2010: 126).

2.2   US Pioneering Efforts in the 1990s

The US pioneered in the introduction of emissions trading systems in the 1990s. Through an amendment of the Clean Air Act, a nation-wide SO2 emissions trading system was introduced. It achieved its goal and is generally considered a success (Bluemel 2008: 225-226). In the first years, emissions dropped tremendously – far below the overall emissions limit and allowances issued (Schmalensee et al. 1998). The 1990 Clean Air Act amendment also initiated the introduction of a NOX emissions trading system, which was implemented in 2003. This was, however, not a nation-wide system. It applied to 12 states[2] and was, thus, the first large-scale regional emissions trading initiative (Ellerman 2000).

In the late 1990s, US federal policy changed course with regard to emissions trading. While President Clinton's administration strongly advocated the inclusion of GHG emissions trading in the 1997 Kyoto Protocol (Depledge 2000: 82-86), back home the tides had changed. In June 1997, Senator Robert Byrd (Democrat, West Virginia) and Senator Charles Hagel (Republican, Nebraska) introduced a resolution stating that the US should not sign any international climate change agreement that a) would mandate new commitments for the US unless it also mandates commitments for developing countries, and that b) would "result in serious harm to the United States' economy" (US Senate 1997). The Senate – the part of the legislature that is constitutionally required to ratify any international agreement – adopted the resolution unanimously. Although President Clinton signed the Kyoto Protocol in 1998, he never submitted it to Senate for ratification. In March 2001, his successor President George W. Bush announced the US' withdrawal from the Kyoto Protocol (Steurer 2003; Sussman 2004; Harrison 2007). The US thus never ratified the Protocol.

---

2   Maine, New Hampshire, Vermont, Massachusetts, Connecticut, Rhode Island, New York, New Jersey, Pennsylvania, Maryland, Delaware and the District of Columbia.

2.3   The EU Taking Over Pioneership

In the international negotiations of the Kyoto Protocol, the US fiercely advocated the inclusion of GHG emissions trading (Depledge 2000: 82-86) and the EU only reluctantly accepted the US demand (Damro/ Luaces Méndez 2003, Harrison 2010: 80-82, van Asselt 2010: 126-127). Following the adoption of the Kyoto Protocol and its ratification in Europe, the EU implemented a GHG emissions trading system in the 2000s, which has become an essential part of its climate change policy mix (Bye/Bruvoll 2008; Child et al. 2008). In the design of the EU ETS, the US experiences played an influential role. US consultants were involved in the drafting of a report that built the basis for an EU Green Paper put forward in 2000 (Skœrseth/Wettestad 2010: 67-68). The Emissions Trading Directive was adopted in 2003 and trading started in January 2005 (European Council 2003). In 2009, a reformed emissions trading system for the period 2013-2020 was agreed (European Council 2009; Oberthür/Pallemaerts 2010: 35-36, 46-52).

A policy instrument that was agreed with reluctance in Kyoto has become "the core climate change instrument for the EU" (Faure/Peeters 2008: 4). The EU has become a pioneer in supranational GHG emissions trading (Ellerman/Buchner 2007: 67-69; Skœrseth/Wettestad 2009; Wurzel/Connelly 2011: 7-8). Introducing its ETS was one of the main policy actions of the EU's effort to reduce its GHG emissions. The EU ETS is the world's largest emissions trading scheme. It covers over 10,000 energy and industrial plants and includes the aviation sector since 2012. In 2012, the European Commission started consultations on the option of including the shipping sector into its emissions trading scheme. The sectors included in the system by 2011 are responsible for about 50 percent of the EU's CO2 emissions. Norway, Iceland and Liechtenstein joined the system in 2008.

2.4   Unsuccessful North American Federal Initiatives in the 2000s

While the EU proceeded with the adoption of the ETS, the 2000s also witnessed a number of legislative attempts on the matter in the US. In January 2003, US Senator Joseph Lieberman (Democrat, later Independent, Connecticut) and Senator John McCain (Republican, Arizona) introduced a legislative proposal for a Climate Stewardship Act (S. 139) that included provisions on the introduction of a US nationwide GHG emissions trading system. This bill, however, was not adopted. In the following congressional sessions similar proposals were submitted but not adopted (Paltsev et al. 2003; Selin/VanDeveer 2009: 128-129). In the absence of legally binding rules, a financial services company initiated a voluntary GHG emissions trading scheme – the Chicago Climate Exchange – which began operating in 2003. In 2008, about 300 companies participated (Meckling 2011: 139-142). Yet, in 2010, it ceded operations because trading had stalled and the price had fallen to under 10 US Cents from over 7.50 US Dollars in 2008.

With President Obama taking office in 2009, a new attempt to introduce an emissions trading system was undertaken. This time around, most supporters were more optimistic than in previous congressional sessions, given the Democratic majorities in both houses of the legislature. Representative Henry Waxman (Democrat, California) and Representative Edward Markey (Democrat, Massachusetts) introduced the American Clean Energy and Security Act (H.R. 2454) in May 2009. This bill passed the House with a vote of 219 against 212. Subsequently, Senator John Kerry (Democrat, Massachusetts) and Senator Barbara Boxer

(Democrat, California) introduced a similar legislative proposal, also including an emissions trading system, in the Senate. The Senate plenary did not vote upon this bill and consequently did not adopt it. With this, the legislative effort failed (Harrison 2010: 92; Betsill/Hoffmann 2011: 83-84).

Contrary to the US, Canada ratified the Kyoto Protocol in 2002. Yet, the federal government has been criticized for a lack of activities addressing climate change. GHG emissions rose compared to 1990 levels instead of the 6 percent reduction pledged in Kyoto. With the Conservative government taking office in 2006, the climate change discourse and efforts shifted towards less ambitious action (Stoett 2009). Canada withdrew from the Kyoto Protocol in 2011.

2.5   The Emergence of North American Subnational Emissions Trading Initiatives

While the idea of emissions trading did not materialize in any concrete federal action to reduce GHG emissions, a number of US states as well as Canadian provinces began filling the federal regulatory void. This development is not only a climate change policy phenomenon; also in other environmental areas, individual states introduced their own laws given federal inaction. More than half of the US states introduced CO2 reduction targets and a mix of different climate change policies, amongst them emissions trading programs. Three subnational regional GHG emissions trading systems were initiated in the course of the 2000s – the Regional Greenhouse Gas Initiative (RGGI), the Western Climate Initiative (WCI) and the Midwest Greenhouse Gas Reduction Accord (MGGRA).

RGGI was the first and until 2012 the only implemented US GHG emissions trading program. In 2005, the Northeastern states of Connecticut, Delaware, Maine, New Hampshire, New Jersey, New York, and Vermont signed a Memorandum of Understanding creating RGGI. Later, Massachusetts, Rhode Island and Maryland joined the initiative. In 2011, New Jersey's governor decided to withdraw from the program. In response, the New Jersey legislature voted in favor of the state remaining part of RGGI. The Memorandum of Understanding sets the goal of a stabilization of CO2 emissions as established for each of the states until the year 2015 and then for each of the four years 2015, 2016, 2017 and 2018 a reduction of 2.5 percent so that by the end of 2018 a 10 percent reduction is achieved. A model rule was agreed jointly. Each participating state established a CO2 emissions cap – based on the agreement – in its respective territory through state legislation. Emitters can trade allowances within the entire RGGI region. The initiative covers CO2 emissions from electricity generators (Bluemel 2008: 227-231; Rabe 2009: 77; Selin/VanDeveer 2009: 120-123).

WCI included Arizona, California, New Mexico, Oregon and Washington State at the time of its inception in February 2007 (Bluemel 2008: 232-234). Later, Utah, Montana and the Canadian provinces British Columbia, Ontario, Quebec and Manitoba joined the initiative. A number of other US states, Canadian provinces and Mexican states participated as observers. Apart from California, the other US states later withdrew from the discussions (Betsill/Hoffmann 2011: 83). In September 2008, WCI issued design recommendations for an emissions trading system to start in 2012. WCI establishes a framework for an emissions

trading program for multiple sectors and emissions (Engel/Orbach 2008: 126). Its scope is broader than that of RGGI. On 12 January 2012, WCI partners presented the 2012 implementation timeline of what is likely to become the largest carbon market in North America. California and Quebec are likely to go ahead in 2012 and introduce the WCI emissions trading program. Other provinces and states are expected to join the initiative at a later point in time.

In November 2007, the Midwestern states of Wisconsin, Minnesota, Illinois, Iowa, Michigan, Kansas and the Canadian province Manitoba agreed MGGRA. This group aimed at designing a joint emissions trading system (Bluemel 2008: 234-235). A stakeholder group developed a model rule, which was, however, not picked up by any of the participating states or province. These MGGRA plans thus have not been implemented and it seems that there is a tacit assumption that it probably never will.

As the discussion above shows, US activities pertaining to GHG emissions trading are numerous with a number of them failing in the policy-making (federal bills) or implementation (MGGRA) process. RGGI, however, is an operating system and WCI is well on its way to become operational in 2012. Emissions trading in the US is thus characterized by regional subnational – one of them cross-border – initiatives, so far. The three North American subnational GHG emissions trading initiatives vary with regard to their design, success and timing. For this reason, they are instructive case studies for a comparative analysis. RGGI was adopted earlier than WCI and MGGRA and is already implemented. WCI is likely to be implemented in 2012 and MGGRA seems unlikely to ever be implemented. RGGI is mildly ambitious, while WCI has high ambitions. The level of ambition of MGGRA was comparatively low.

3.   Transfer Mechanisms and Domestic Factors

The EU's and some of its Member States' promotion of GHG emissions trading in North America and the timing of the emergence of the North American subnational regional programs suggest that these programs could have been affected by the ETS. This section outlines the possible processes through which the EU ETS could have affected the North American initiatives. It develops an analytical framework based on transfer mechanisms and domestic factors, which provided the basis for the study of the role of the EU ETS in the three North American emissions trading initiatives presented in section four. The process of the transatlantic journey of the ETS is conceptualized in two steps. First, the EU policy affects the policy positions and strategies of North American actors through one of the mechanisms – learning, emulation and competition considerations. Whether or not these actors are receptive to effects through one or more mechanisms depends on domestic factors – namely the politics and policy problem. Second, the actors with revised policy positions and strategies engage in their domestic policy-making process, which is determined by domestic factors. These are the politics, institutions and policy problem.

3.1   Transfer Mechanisms

Learning, emulation and competition could be plausible mechanisms through which the EU ETS could have affected the North American initiatives. Academic literature identifies various mechanisms through which EU policy could affect North American policy (for an overview see for example Börzel/Risse 2012; Gilardi 2012). Some of these mechanisms – international agreements and coercive measures – can, however, be excluded. Learning and emulation could be possible explanations and therefore provide the basis for the empirical investigation. The lobbying in favor of GHG emissions trading programs by multinational companies motivated by competition considerations cannot be excluded for one of the three North American programs, namely the Western Climate Initiative (WCI) and was therefore included in the empirical investigation.

Learning could explain the transfer of the idea of GHG emissions trading from the EU to North America. Learning takes place when actors – which are involved in the North American policy-making processes – draw lessons from information about the EU ETS and consequently update (parts of) their policy positions and strategies. Learning describes the cognitive process of analyzing EU policy. The result of learning can be the revision or corroboration of actors' policy positions so that they pursue policy options similar to EU policy in the North American policy-making process or, the opposite case, so that they pursue policy options different from the EU policy, which would be a case of negative learning (Levy 1994: 290; Löfstedt/ Vogel 2001: 400; Weyland 2009: 392-393, 399-401; Gilardi 2012). Most actors in most instances draw lessons in a bounded manner. They are not aware of all available information and they do not strive to do so. Rather, actors have certain ideologies and worldviews that make them weigh certain information more and neglect other (Simon 1965; Meseguer 2006).

Emulation could also explain EU effects on North America. Emulation occurs when actors that are involved in the North American policy-making process change or feel corroborated in their policy position and strategy based on their belief that EU policy is a legitimate and appropriate measure that should also be introduced in their jurisdiction (March/Olsen 1989: 23, 160-162). In contrast to learning, emulation is based on superficial observation of EU policy instead of deeper analysis. Emulation can be normative or mimetic. Normative emulation is based on the adherence of US actors to norms and beliefs that make them assess EU policy as appropriate. Mimetic emulation is based on a high esteem of the EU and the perception of the EU and its policies as successful and desirable (Finnemore/Sikkink 1998: 891, 901, 906; Polillo/Guillén 2005; Shipan/Volden 2008: 842-843). Emulation includes cases in which actors use EU policy to justify a policy position that they have supported for a long time (Dolowitz 2006: 268).

Learning and emulation can be demand- or supply-driven processes. North American actors can actively search for information about the ETS and learning or emulation can thus be driven by their demand. The EU can, however, also engage in the promotion of its policy abroad. This can spur the transfer process. Learning and emulation processes could consequently be seen as moving along a continuum between demand- and supply-driven impetuses.

A competition- and trade-related mechanism could additionally explain transatlantic effects in the case of WCI. Companies that are active in the EU and in North America could have pushed for a policy similar to the EU policy in North America in an effort to level the playing field with competitors that are exclusively active in North America. Companies that are active in the EU had to invest in compliance with the EU ETS. These companies are competing with North American companies that did not have to invest in EU compliance. This could incite actors to push for a similar policy so that the same investment must be made by all market actors (Vogel 1997). This mechanism seems only a likely explanation in the case of one of the North American GHG emissions trading programs. The two other programs only cover electricity generators, which are mostly local and regional as opposed to trans- or multinational companies. Only the WCI covers industry sectors such as iron, steel, cement, glass, pulp and paper, in which multinational companies can be found. Since these sectors are also included in the EU ETS, they could have pushed for the adoption of GHG emissions trading in North America with the reason that they would level the playing field with domestic competitors that do not operate on the EU market.

While the EU ETS could have affected North American emissions trading through one or a combination of these three mechanisms, domestic factors could be an alternative explanation. In this case, the EU ETS would not have played a role in the North American process. Additionally, domestic factors in North America can explain the scope conditions under which the different mechanisms occur and the transfer of ETS elements is more likely. In the event of influence of the EU ETS on the North American initiatives, the interplay between transatlantic effects and domestic factors appears likely. The EU ETS could have played a prominent or minor role in the inception, design and adoption of North American emissions trading programs. It could only have fed in specific aspects of GHG emissions trading at specific points of the North American policy-making process. It could, however, also have been the main trigger and blueprint for the North American programs. A nuanced view of policy transfer is thus proposed. The EU ETS as such could have affected the developments in North America but it could also have been certain elements of it at certain stages of the policy cycle. This depends on the receptiveness and fit of the North American factors with the EU ETS. The section below discusses these domestic factors and links them to the mechanisms.

3.2   Domestic Factors

Domestic factors provide explanations for whether and to what extent North American states and provinces are receptive to effects of the EU ETS. Three groups of domestic factors are distinguished: politics, institutions and the policy problem. In the first step of the process – the EU policy affecting the policy positions and strategies of North American actors through one of the mechanisms – the politics and policy problem factors play a twofold role. On the one hand, they could be alternative explanations to the influence of the EU ETS in explaining the emergence of emissions trading initiatives in North America. Instead of learning, emulation and competition-motivated explanations, the existence of the policy problem of climate change and the political considerations and convictions of the involved stakeholders could provide an explanation for the inception and the design of RGGI, WCI and MGGRA. However, they can also explain the likelihood of actors to engage in learning and emulation. In the second step of the process – actors with revised policy positions and strategies engaging in their domestic policy-making process, which can lead to policy output

affected by EU policy – the three groups of domestic factors can provide explanations for the likelihood of the transatlantic journey of the EU ETS.

The politics factors relate to the political majority constellations in the legislature and to the ideologies of relevant stakeholders. The ideology of actors makes them more or less likely to be receptive to the ETS (bounded learning). The number of receptive actors determines whether they can find a majority to push their ideas to adoption. The overall political context in which they act determines their strategies and actions because they are ultimately pursuing what they perceive as their interest in the sense of their political career and their political goals. Since policy-making can be described as struggle between different advocacy groups and interests (Dowding 1995: 150), whether there is sufficient support and leadership on an issue is important for a policy measure's successful adoption (Schimmelfennig/Sedelmeier 2004: 664-665; Lavenex/Schimmelfennig 2009: 805). Political support for a policy similar to the EU ETS appears more likely in jurisdictions in which the majority of relevant stakeholders adhere to ideologies that are compatible with the basic premises of the EU policy (Katz et al. 1963: 249-250). Fitting with the ideologies does not necessarily mean that they must be the same. Ideology can be different but nevertheless fit with the basic ideas and concepts of EU policy. The political context can provide explanations for why or why not politicians engage in pursuing and advocating certain policy measures (Meseguer/Gilardi 2009: 533-534). The ideologies of the actors involved in the North American policy-making process make them thus more or less receptive to learning and emulation. They provide explanations for the occurrence and strength of these two mechanisms. Additionally, the political majority constellations provide explanations for whether and when the actors that learned from or emulated the EU ETS can successfully push for their (revised) policy position so that it is reflected in the policy output.

Institutions define the framework in which the politics take place (March/Olsen 1989: 18). Institutions, defined broadly, include the ways in which jurisdictions and their policy-making process are organized, already existing policy as well as broadly-accepted norms that shape a jurisdiction's identity (Gurowitz 2006: 310-311). Next to the political context that shapes actors' strategies, the institutional context shapes what options they have and how many actors are required to push for an idea. The framework of formal policy-making procedures and informal norms can provide opportunities and constraints for policy-relevant state and non-state actors to pursue their preferred policy option (Deutsch 1966: 147). Formal institutional arrangements can facilitate or make it more difficult for actors to gain access to the policy-making process. The number of access points to the policy-making process and of veto points for policy-makers to block policy proposals can influence the result of the policy-making process. Some political systems can make it more difficult than others to introduce radical policy change (Immergut 1990; Cortell 1997: 395-396). Informal institutions such as norms and customs embedded in a given jurisdiction's political culture can also facilitate or obstruct the introduction of certain policy measures (Risse-Kappen 1994: 208-212). A third institutional element is path dependencies resulting from existing policies and infrastructures (Levi 1997: 28-29; Sedelmeier 2006: 12). The institutional factors thus provide additional explanations for whether and when learners and emulators can successfully advocate policies affected by the EU ETS.

The policy problem factors relate to the existence and framing of the problem regarding the policy in question. It appears more likely that a large enough group of actors in a jurisdiction is receptive to advocating GHG emissions trading when it is faced with a problem that requires such a policy response. In cases in

which US states and Canadian provinces face a policy problem that can be addressed with a measure similar to a given EU policy, actors are more inclined to introduce policies on the issue (Hays 1996; Gilardi et al. 2009). Not only the objective existence of a policy problem but also the way in which actors frame it within the policy debate is an important factor. Climate change is a global problem affecting Europe and North America in similar ways. Yet, policy-makers, stakeholders and the public frame this problem differently in regard to its severity, the anthropogenic impact and the appropriate means to respond to it. This can lead to very different conclusions as to whether and with what means climate change should be addressed, which relates to the ideology of actors and the politics factors. Additionally, whether or not policy-makers and other stakeholders perceive this problem as urgent and a priority affects how much effort they put into their advocacy in favor of their preferred policy option. The framing of the policy problem as for example an environmental, economic or financial problem also affects the way in which a policy measure is designed (Tews 2005: 69-70; Princen/Rhinard 2006: 1121; Lavenex/Wichmann 2009: 98). The existence and framing of the policy problem contributes thus to explaining whether actors are receptive to learning and emulation because if a solution to a problem is needed this appears more likely. Moreover, the presence and broad recognition of a policy problem related to GHG emissions affects the politics, making it difficult to oppose a related policy measure.

3.3   Research Methods

The potential transatlantic effects of the EU ETS were examined with a qualitative comparative case study approach. This method can capture the complexities and a broad range of different aspects of the process. Actors' motivations and interpersonal dynamics can be captured as well as situations of equifinality. The study is largely based on 32 elite interviews. The sampling for the interviews was based on the identification of the key actors in the design of the GHG emissions trading programs.

The actors that have been most involved in the process are deemed to be the most appropriate interviewees for providing insights into the detailed processes that took place. Through targeted open-ended questions, elements of the way the process took place could be reconstructed and causal links between the EU ETS and the North American programs could be investigated. Approximately ten interviews were conducted for each of the three programs. Given that the number of persons involved in these processes was relatively small, a relatively broad share of key actors was interviewed. The number of interviews enables triangulation, thus verifying the statements of one interviewee through the statements of others. For the purpose of triangulation, a broad coverage of persons that were intensely involved and interviewees ranging from state officials and academics to NGO and business representatives were included. The criterion for choice of interviewee was their level of involvement in the process. A subsequent comparison between the cases can help confirm some of the results of the within-case analysis.

The interviews started with a question about the interviewees' assessment of the main reasons for the introduction of the respective GHG emissions trading program. This question aimed at investigating whether the EU ETS was considered a trigger or whether domestic or other external factors were considered having triggered the processes leading to the different initiatives. This was followed by a set of questions related

to the politics, institutional and policy problem factors. Only then, the role of the EU ETS was directly mentioned. It was asked whether the ETS played a role and if so what kind of a role. Direct and indirect contacts between EU and North American actors were investigated and specificities of the role of the EU ETS focused upon. The results of this survey are presented in section four below.

4.   The Role of the EU ETS in North American Initiatives

The empirical analysis shows that the EU ETS played a role in the North American GHG emissions trading programs. Every interviewee confirmed this. The ETS contributed mainly to the design phase of the programs, once the initiative was taken and the political support existed. Domestic factors were the triggers for the initiatives. They explain their inception and also the decline of some of them. The ETS's role could be described as a reference point, guiding elements of the program design in certain directions. The dominant mechanism was learning, which took place at the technical rather than the political level. The sections below first present the results of the study on the triggers of the three emissions trading initiatives and then on the role of the EU ETS in the process.

4.1   Triggers of the Initiatives

The empirical analysis revealed that the EU ETS was not the trigger that led to the inception of the three North American GHG emissions trading programs. When asked for their assessment of the reasons for the respective program's inception, all interviewees mentioned exclusively domestic factors. The politics factors were the main trigger for the three initiatives. At the time of their inception, climate change was regarded as a problem that requires policy responses in the respective states. The inaction of the federal level led to a general recognition amongst many state politicians of the need for state level responses. This problem recognition and framing changed in the course of time towards the end of the first decade of the 2000s. The institutional framework of the US and Canadian constitutions enabled the states and provinces to move ahead with their emissions trading policy given the absence of federal activity.

The lack of federal climate regulation was mentioned most frequently by interviewees (RGGI 82 percent, WCI 92 percent, MGGRA 100 percent) in all three cases as the trigger of the programs' inception. The answers were accompanied by an implicit or explicit recognition that climate change was a problem that needed to be addressed through policy measures. At the time of inception of the programs, there was a growing overall political recognition of the need for climate policy. Federal action in the administration succeeding President Bush – regardless of whether a Republican or Democratic politician was elected – was anticipated. In the cases of RGGI and WCI, most interviewees stated that the respective states wanted to push the federal level to become active on climate change. Demonstrating that GHG emissions trading was feasible and successful as well as building up pressure on the federal government to act were dominant

drivers, both in RGGI and WCI.[3] In the case of MGGRA, the reasons linked to federal inaction had a slightly different angle. Not pushing the federal government to become active on meaningful climate policy but rather making sure that the Midwest was ahead of the curve of the anticipated federal policy was the motivation. The states wanted to set an example that reflected the particular interests of the participating Midwestern states.[4] This could be seen as a counterbalance to RGGI and WCI, which aimed at more ambitious goals and were introduced in regions with different economic structures and electoral demands. While filling the federal void drove all three programs, their particular strategy was nevertheless different. RGGI and WCI strove to set ambitious examples and tried to put pressure on the federal government for federal regulation while MGGRA wanted to set an alternative example reflecting their interests and rather acted out of expectation that federal regulation was unavoidable.

US federal climate policy seemed very likely in the period prior to the election of President Obama and in the first two years after his election. Both presidential candidates in the 2008 election campaign spoke out in favor of climate regulation in case of their election. Republican candidate John McCain co-sponsored emissions trading legislative proposals in 2003, 2005 and 2007 in the US Senate and in his presidential campaign he supported a trading system to cut US emissions 60 percent below 1990 levels by 2050 (Clark 2008). Democratic candidate and later President Barak Obama promised federal climate legislation and supported the efforts of Representatives Waxman and Markey when they proposed the American Clean Energy and Security Act (H.R. 2454) in May 2009. This bill passed the House of Representatives but failed in Senate (Harrison 2010: 92; Betsill/Hoffmann 2011: 83-84). There was thus a period of time during which the overall expectations of federal climate legislation were very high and most observers anticipated the federal government to act. This set the general framework in which the state-level policy-makers acted. They tried to push for and shape federal policy. RGGI falls into the period of the Bush presidency during which federal regulation was very unlikely but the program was driven by the motivation to build up pressure on the federal level. WCI was initiated slightly later but followed similar reasoning. MGGRA was incepted in the anticipation of federal policy and with the reasoning of shaping this policy so that it reflects particularities and concerns of the Midwestern states.

Gubernatorial leadership is the second most frequently mentioned factor in all three cases (RGGI 73 percent, WCI 75 percent, MGGRA 57 percent). In the case of RGGI, all interviewees that referred to gubernatorial leadership mentioned the leadership of Governor George Pataki of New York State. He initiated RGGI by sending a letter to his fellow Northeastern governors, inviting them to start a process of joint climate policy

---

3 Interviews: Environmental Think Tank, Washington, DC, 22 February 2012; Consultant on Energy, Climate and Regulatory Issues, Boston, 27 February 2012; Environmental NGO, Boston, 27 February 2012; Environmental NGO, New York, 28 February 2012; Environmental NGO, Washington, DC, 2 March 2012; Environmental NGO, Boston, 7 March 2012; Environmental NGO, Boston, 8 March 2012; Energy Utility, Winnipeg, 26 April 2012; Government Agency, Tucson, 26 April 2012; Government Agency, Denver, 1 May 2012; Environment Department, Santa Fe, 9 May 2012; Environmental NGO, Seattle, 9 May 2012; Environment Department, Olympia, 10 May 2012; Environmental Department, Helena, 22 May 2012; Environmental NGO, Seattle, 23 May 2012; Government Agency, Sacramento, 25 May 2012.

4 Interviews: Environmental Agency, Springfield, 24 May 2012; Environmental NGO, Washington, DC, 11 May 2012; Environmental Department, Lansing, 1 May 2012; Commerce Department, Springfield, 7 May 2012; Industry, St. Paul, 30 April 42012; Agricultural Organization, Washington, DC, 23 April 2012; Academic, Washington, DC, 1 May 2012.

based on GHG emissions trading. Governor Pataki was referred to as a driving force behind the process, supporting and facilitating the inception and design of RGGI.[5] In the case of WCI, Governor Schwarzenegger was mentioned by a number of interviewees. He made climate change one of his priorities and pushed for the adoption of the California climate law AB 32. He also engaged in a dialogue with other Western governors. Interviewees report, however, that individual governors in the different states took on leadership in their particular state and engaged in the WCI process. Most of the states had different climate policies and plans already. The participation in a regional effort was considered contributing to the existing efforts and an opportunity for governors to demonstrate leadership.[6] In the case of MGGRA, gubernatorial leadership also played a role. In this case it was a number of governors. Governors Pawlenty of Minnesota and Doyle of Wisconsin were mentioned as leading supporters of the program. In some states, the personal conviction of the governor played a major role even in the absence of broad support by the legislature, which was the case in Montana. In other states, such as Washington State and Oregon, the governors enjoyed broad support from their electorate and legislatures.[7]

The federal system of the US and Canada provided the possibilities for different governors and premiers to go ahead with their own climate initiatives in the absence of federal action. The US and Canadian constitutions provide for relatively broad leeway for subnational action in policy areas that are not regulated by the federal level. In addition to these formal institutional frameworks, the existence of state climate policy prior to the inception of the GHG emissions trading programs provided a basis that the RGGI, WCI and MGGRA efforts could be built upon. The relatively favorable institutional factors were complemented by the favorable politics at the time of the inception of the programs. Different governors attempted to show leadership and to gain popular support by acting in the conditions of federal inaction. Especially Governor Pataki was referred to by a number of interviewees as considering his leadership on RGGI as a way to gain a national profile. At the time, he was said to consider running for the Republican candidacy for President. According to some interviewees, Governor Schwarzenegger saw climate policy as one of his legacy issues and an area to assert himself as a leader. Political considerations and strategies played an important role, especially in the cases of the inception of RGGI and WCI. The broad recognition of climate change as a policy problem was a third factor contributing to the inception of the three GHG emissions trading initiatives.

---

5   Interviews: Consultant on Energy, Climate and Regulatory Issues, Boston, 27 February 2012; Environmental NGO, Boston, 27 February 2012; Environmental NGO, New York, 28 February 2012; Environmental NGO, Boston, 7 March 2012; Office for Commonwealth Development, Boston, 12 March 2012; Grid Operator, Boston, 13 March 2012; Environmental Department, New York, 19 March 2012; Industry Association, Marlborough, 21 March 2012.

6   Interviews: Energy Utility, Winnipeg, 26 April 2012; Government Agency, Tucson, 26 April 2012; Government Agency, Denver, 1 May 2012; Environmental Department, Santa Fe, 9 May 2012; Environmental NGO, Seattle, 9 May 2012; Environmental Department, Helena, 22 May 2012; Environmental NGO, Seattle, 23 May 2012; Government Department, London, 16 May 2012; Government Department, London, 23 May 2012.

7   Interviews: Government Agency, Tucson, 26 April 2012; Government Agency, Denver, 01 May 2012; Industry, St. Paul, 30 April 2012; Agricultural Organization, Washington, DC, 23 April 2012.

4.2   The Role of the EU ETS and the Transfer Mechanisms

While domestic factors and not the EU ETS triggered the inception of the North American GHG emissions trading initiatives, the EU policy nevertheless played an important role in the North American process. Learning was the dominant transfer mechanism. Once the agreements between the different states and provinces were signed to set up the different regional initiatives, the EU ETS entered the scene. In the processes in which the model rules for the different programs were designed, the ETS was considered an example that actors drew lessons from. All interviewees were asked whether they think that the EU ETS played a role in the respective program and everyone confirmed this. Most interviewees used the term learning or described the process of drawing lessons from the EU's experience. In the context of these learning activities, interviewees described aspects in which the ETS provided a positive example to draw lessons from. More often, however, interviewees described learning from the mistakes that the EU made in the first phase of the ETS. These lessons were also reflected in the EU's revision of the ETS and improved in the second and third phase.

While all interviewees reported some kind of role for the EU ETS in the design process of the respective program rules, they stated that the ETS did not play a role in the political discourse. Some interviewees described that the politics were not favorable enough for such arguments. A number of politicians in the legislatures would consider a European policy model as non-aspirational. A reference to the EU ETS as a positive example would not fall on receptive grounds. For this reason, references to the ETS in political debates were rather rare.[8] This hints at a low degree of emulation and a more dominant role of learning in the context of technical discussions in the design of the programs. Evidence for the mechanism related to economic interdependence was not found. Interviewees did not mention industry advocacy in favor of North American GHG emissions trading based on the reasoning of leveling the playing field with domestic competitors. Some interviewees reported that industries such as cement and glass manufacturing were opposed to WCI.[9]

In addition to the lessons from the EU ETS, especially in the case of RGGI but also WCI, domestic expertise on emissions trading from the SO2 and NOX programs was mentioned. The design of the RGGI model rule was based in parts on the NOX program that the states in that region had implemented in the early 2000s. In the case of WCI, some interviewees mentioned that the RGGI experience was taken into account in addition to lessons from the ETS and the SO2 program. The MGGRA process was portrayed by many interviewees as less affected by lessons from other programs and rather inward-looking at the particularities of the region's economy.

---

8   Interviews: Office for Commonwealth Development, Boston, 12 March 2012; Environmental Think Tank, Washington, DC, 22 February 2012; Environmental NGO, Boston, 8 March 2012; Environmental Department, New York, 19 March 2012; Environment Ministry, Québec, 23/04/12; Energy Utility, Winnipeg, 26 April 2012; Government Agency, Tucson, 26 April 2012; Government Agency, Denver, 1 May 2012; Environmental Department, Olympia, 10 May 2012; Environmental Department, Helena, 22 May 2012; Environmental NGO, Seattle, 23 May 2012; Environmental Department, Lansing, 1 May 2012; Commerce Department, Springfield, 7 May 2012; Industry, St. Paul, 30 April 2012; Agricultural Organization, Washington, DC, 23 April 2012.

9   Interviews: Environmental Department, Olympia, 10 May 2012; Environment Ministry, Québec, 23 April 2012; Environmental Department, Santa Fe, 9 May 2012; Environmental Department, Helena, 22 May 2012; Environmental NGO, Seattle, 23 May 2012.

4.3   Contact Patterns and EU Policy Promotion

The EU promoted its ETS through a number of direct contacts with North American actors to discuss the EU's experiences, which enabled and facilitated learning activities. The intensity of the contacts, however, varied between the cases. In all three cases, interviewees reported of a number of incidences in which EU experts travelled to the US and gave presentations about the ETS.[10] In the case of RGGI, a number of actors that were involved in the design of the model rule were in direct contact with ETS experts in the EU. This includes experts from the European Commissions and of EU Member State institutions. Especially the state officials that were mainly in charge of designing the RGGI model rule were reported to have had regular EU contacts. These state officials were familiar with the EU ETS.[11] The contact mainly took the form of presentations by EU experts that had travelled to the US or Commission Delegation staff as well as e-mail and telephone contact.

In the case of WCI, the EU policy promotion through direct contact with North American actors was the strongest. Two EU ETS experts were seconded to California for an extended period of time during the program design phase. They were directly involved in a number of meetings and worked together with the actors designing WCI rules. One of these experts was based at the California Air Resources Board, the organization that is in charge of implementing California GHG emissions policy, and the second expert worked with the California Environmental Protection Agency and engaged with various actors and organizations. A third EU ETS expert was seconded to British Columbia. While these EU experts were sent by an EU Member State, namely the United Kingdom (UK), the European Commission contributed to the coordination of their activities. The reason for a Member State rather than the Commission sending experts to North America was, on the one hand, resources. The Commission's resources for seconding an expert to promote its climate policies are relatively limited. On the other hand, the UK and California signed a Memorandum of Understanding that contained provisions on the exchange of experts. This provided a framework within which the sending of a UK official was facilitated.[12]

---

10 Interviews: Environmental NGO, Boston, 27 February 2012; Environmental NGO, New York, 28 February 2012; Environmental NGO, Boston, 7 March 2012; Office for Commonwealth Development, Boston, 12 March 2012; Environmental Department, New York, 19 March 2012; Government Agency, Tucson, 26 April 2012; Government Agency, Denver, 1May 2012; Environmental Department, Santa Fe, 9 May 2012; Environmental NGO, Seattle, 9 May 2012; Environmental Department, Helena, 22 May 2012; Government Agency, Sacramento, 25 May 2012; Environmental Department, Lansing, 1 May 2012; Agricultural Organization, Washington, DC, 23 April 2012; Academic, Washington, DC, 1 May 2012; Government Department, London, 16 May 2012; Government Department, London, 23 May 2012.

11 Interviews: Consultant on Energy, Climate and Regulatory Issues, Boston, 27 February 2012; Environmental NGO, Boston, 27 February 2012; Environmental NGO, New York, 28 February 2012; Environmental NGO, Washington, DC, 2 March 2012; Office for Commonwealth Development, Boston, 12 March 2012; Environmental Department, New York, 19 March 2012.

12 Interviews: Government Department, London, 16 May 2012; Government Department, London, 23 May 2012; Government Agency, Sacramento, 25 May 2012; Environmental Department, Helena, 22 May 2012; Environmental Department, Olympia, 10 May 2012; Environmental NGO, Seattle, 9 May 2012; Environmental Department, Santa Fe, 9 May 2012; Government Agency, Tucson, 26 April 2012; Environment Ministry, Québec, 23 April 2012.

In the case of MGGRA, less intense direct contact with EU actors was found. Interviewees reported of contacts between, in particular, the consultants of the design process and EU actors and of some presentations given by EU actors that had travelled to the US. Many of the other stakeholders involved in the process did not have direct contact with experts from the EU but rather gained information from intermediaries, in particular the consultants, and other sources of information such as specialized media.[13] The promotion of the ETS by EU actors differed thus significantly between the three programs. The demand for such activity by North American actors played a role. More receptive actors engaged in more contacts with the EU. The EU seems to have followed a rather unobtrusive approach.

4.4   Transferred Elements

The elements of the EU ETS of which North American actors drew lessons differed between RGGI, WCI and MGGRA. In the case of RGGI, most interviewees referred to lessons drawn from the EU's decision to hand out most allowances for free in the first ETS phase. This led to windfall profits by some companies that received allowances without costs and nevertheless charged their customers. Most interviewees mentioned that it was very important in the RGGI debate about whether to auction allowances or to distribute them without charge to be able to analyze and refer to the EU example. The ETS experience helped making the case in favor of auctioning, which was incorporated in the RGGI model rule.[14] While the RGGI Memorandum of Understanding signed by the participating governors stipulates that 25 percent of allowances must be auctioned, in practice, almost 100 percent are auctioned. One interviewee mentioned that the ETS was important because it showed that trading on a regional scale could be done.[15]

In the case of WCI, interviewees referred to a number of elements that played a role. One element that was mentioned by interviewees is the importance of data. They reported that WCI designers drew the lesson from the ETS that solid baseline data is important to avoid over-allocation, which is what happened in the first ETS phase.[16] Interviewees mentioned the security breaches that occurred in the EU with regard to the ETS registry as one aspect that WCI designers drew lessons from. These lessons from an EU mistake contributed to awareness of data security aspects in the WCI rules.[17] The importance of a centralized body that has the power to enforce the GHG emissions trading program is a lesson that WCI designers were reported to have drawn from the ETS. However, given constitutional constraints, US states and Canadian provinces cannot transfer such powers to a jointly established organization. This would require approval

---

13 Interviews: Environmental Agency, Springfield, 24 May 2012; Environmental NGO, Washington, DC, 11 May 2012; Environmental Department, Lansing, 1 May 2012; Commerce Department, Springfield, 7 May 2012; Industry, St. Paul, 30 April 2012; Agricultural Organization, Washington, DC, 23 April 2012.

14 Interviews: Consultant on Energy, Climate and Regulatory Issues, Boston, 27 February 2012; Environmental NGO, Boston, 27 February 2012; Environmental NGO, New York, 28 February 2012; Environmental NGO, Boston, 7 March 2012; Environmental NGO, Boston, 8 March 2012; Office for Commonwealth Development, Boston, 12 March 2012; Grid Operator, Boston, 13 March 2012; Environmental Department, New York, 19 March 2012.

15 Interview: Environmental NGO, Boston, 8 March 2012.

16 Interview: Environmental Department, Santa Fe, 9 May 2012; Government Department, London, 16 May 2012.

17 Interviews: Energy Utility, Winnipeg, 26 April 2012; Government Agency, Denver, 1 May 2012.

of the federal Congress, which seems very unlikely.[18] The ETS was referred to as an example that showed that GHG emissions trading was possible in a wealthy economy without major repercussions on economic growth.[19] A number of interviewees mentioned that various elements with regard to the implementation and operation of the ETS informed the WCI process, without further specifying these elements.

During the process of designing the model rule, interviewees reported, general but not many specific lessons from the EU ETS played a role. EU prices were used in the development of the model rule.[20] The organization of trading between the EU countries is another element that instructed MGGRA designers when discussing trading between states and provinces.[21]

4.5   Comparison

The EU ETS played a role in all three North American subnational GHG emissions trading initiatives. In all three cases, it did not trigger the inception of the program but once the political accord was concluded, lessons from the ETS were included in the program design discussions. Learning was the dominant mechanism in all cases. While the overall observations with regard to the ETS' role are similar, the details differ between RGGI, WCI and MGGRA. The intensity of learning activities, the channels of contact and of transferring information about the ETS as well as the elements that were transferred differ. Domestic factors in the respective states and provinces explain the variance.

The learning activities were most elaborate in the case of WCI, where the most intense exchange between EU and North American actors occurred and a large number of elements were analyzed with regard to possible lessons for the WCI design. The different degree of learning can be explained by different degrees of receptiveness for lessons from the ETS and different levels of ambition of the programs. The receptiveness of actors in the states and provinces can be explained by the different ideologies of the actors and the overall jurisdictions' self-perception, the overall public receptiveness to environmental issues and government intervention, the industry structure and, related to this, the interests and types of stakeholders as well as the history of environmental policy that created path dependencies. These factors differ between the three regions that introduced GHG emissions trading initiatives. While an in-depth and detailed study of the domestic factors goes beyond the analysis presented in this paper, the interviews confirm that they explain the variance.

The different levels of ambition and scope of RGGI, WCI and MGGRA provide explanations for the number and type of elements that were transferred. WCI is the most ambitious program with the broadest scope. Given this level of complexity, there are more aspects to be considered in the program design, which provides more entry points for lessons from the EU ETS. Given the ETS' level of ambition, which can generally

18 Interviews: Government Agency, Sacramento, 25 May 2012; Government Department, London, 16 May 2012.

19 Interview: Environmental NGO, Seattle, 23 May 2012.

20 Interviews: Environmental Department, Lansing, 1 May 2012; Commerce Department, Springfield, 7 May 2012.

21 Interview: Industry, St. Paul, 30 April 2012.

be considered relatively high, WCI is the closest to it. This makes ETS elements most relevant and transferable to WCI.

The different channels of contact and EU policy promotion activities can be linked to the politics and jurisdictions' self-perception and ambition as well as the ambition and purpose of the programs. California Governor Schwarzenegger had ambitions to place California not only in a leadership position in the domestic context but also to play a global role.[22] He signed a Memorandum of Understanding on climate change with UK Prime Minister Tony Blair and put the level of ambition of California's climate policy on a par with other nation states such as the UK. In one of his press releases, Governor Schwarzenegger for example stated:

> *"By designing a cap-and-trade program that will achieve our greenhouse gas reduction goals without impairing robust economic growth, California has the opportunity to provide a model for the rest of the country, and indeed the rest of the world. […] so it is no exaggeration to say that the eyes of the world will be upon [our] work."* (Office of Governor Arnold Schwarzenegger 2009)

This commitment to ambitious climate policy contributes to explaining the intensity of the contact between EU and California experts. The Canadian provinces Quebec and British Columbia are in many ways comparable to California.

The overall political interaction between the Northeastern US states with EU Member States and the EU institutions is less extensive than California's but nevertheless well-developed. As noted above, the ambition and scope of the program is more limited and the reasons for the inception of RGGI are more US-focused. Additionally, this region already had experiences with the regional NOX emissions trading program. This explains the interest in lessons from the ETS but also from own previous experiences.

The Midwestern states and provinces are most remote from the EU in terms of MGGRA's level of ambition and the aim that the states and provinces wanted to achieve with it. Their goal was to influence possible federal legislation so that it accommodates the interests and particularities of the Midwest, which could be described as less ambitious with regard to emission reduction goals. Given this domestic focus and the relatively large difference between MGGRA and the EU ETS, the demand for contact with EU experts was lower in the Midwest than in the Northeast and more so than in the WCI states and provinces.

---

22 Interviews: Energy Utility, Winnipeg, 26 April 2012; Government Agency, Tucson, 26 April 2012.

5. Conclusions

The EU ETS affected North American GHG emissions trading programs. The EU promoted its ETS to different degrees in the three cases. The intensity of interaction and policy promotion activities can be explained by the demand and receptiveness of the respective North American actors and jurisdictions. This relates to factors such as program ambition, the dominant political ideology and the regulatory track record in climate policy. The dominant mechanism through which the ETS entered North America is learning. Especially in the WCI, which is closest to the ETS in terms of its scope and level of ambition, the ETS served as an instructive example on many program design issues. Also in the RGGI design process, lessons from the ETS instructed the decisions. In the MGGRA model rule design process, some general lessons from the ETS were considered. The domestic factors, especially the dominant political ideology, the states' and provinces' self-perception and their regulatory history with regard to environmental policy, provide important explanations for the higher degree of intensity of contacts and learning in WCI than in MGGRA, with RGGI ranging between these two initiatives. The introduction of the EU ETS did not trigger a wave of similar GHG emissions trading programs in North America. Nevertheless, the ETS played an important role in the design of the North American initiatives, in particular in the WCI and the RGGI. Once domestic factors triggered the inception of the North American initiatives, the ETS served as a reference point in the discussions about the design of these programs.

The empirical investigation shows that the actors that were chiefly involved in the design of the different GHG emissions trading programs engaged in learning from the EU ETS. The ETS contributed to technical level discussions amongst different stakeholders, which were involved in the discussions. In the political debate, reference to the EU ETS as an aspirational model was almost absent.

The study presented in this paper shows that EU policy can affect policy in other jurisdictions at different stages of the policy cycle (Howlett/Ramesh 2003: 11-15). While it could be plausible that EU policy is one of the reasons that triggers policy developments in non-EU jurisdictions, this did not happen in the case of GHG emissions trading. In this case, the EU ETS entered the policy cycle at the policy formulation stage. The policy problem recognition, the politics and the institutional context were favorable to lead to the inception of RGGI, WCI and MGGRA. This then led to a demand for drawing lessons from the EU experiences. The greater compatibility of the domestic factors, program scope and ambitions of WCI with the EU ETS explain the greater role of the ETS in this case.

The EU promoted its policy mostly after an initial demand was created in North America. The Memorandum of Understanding between California and the UK and the secondment of EU experts to California were significantly driven by Governor Schwarzenegger. The EU delivered information mostly when there was some demand and a somewhat receptive environment created through the initial placing of GHG emissions trading on the respective policy agenda. The effects of the ETS on North American initiatives in the policy design phase can thus partially be explained by the fact that the EU engaged mostly in policy promotion activities in that phase. This in turn can be explained by the demand in North America for the promotion activities. The findings can be instructive to EU policy-makers that are interested in promoting EU policy abroad. These actors' awareness and taking into account of the domestic factors in the respective extra-EU jurisdiction seems crucial for the success of their efforts. Receptive domestic conditions increase the

likelihood for successful promotion of EU policy through learning.

Related to this, oftentimes, learning is not about copy-pasting EU policy. In the cases analyzed in this paper, most lessons were drawn from mistakes and "teething problems" of the EU ETS' first phase. The adaptation to the domestic context in extra-EU jurisdictions often means that the EU provides an instructive and helpful experience, which, however, is likely to be adapted to the particular circumstances in the respective jurisdiction. These findings can be instructive for EU policy-makers because they provide the insight that it is not enough to provide information about the respective EU policy. The extra-EU context is important and can most likely best be explored through dialogue with policy-makers from the respective jurisdiction. Pro-active communication of lessons about the successful and less successful experiences of the EU with its policies combined with awareness of extra-EU jurisdictions' receptiveness and need for lessons from the EU, preferably gained through a dialogue, seems to be a good recipe for successful promotion of EU policy abroad. This means that the EU's activities and the lessons it communicates can differ, depending on the extra-EU jurisdiction that it engages with.

Literature

Betsill, Michele M./Hoffmann, Matthew J. 2011: The Contours of "Cap and Trade": The Evolution of Emissions Trading Systems for Greenhouse Gases, in: Review of Policy Research 28/1, 83-106.

Bluemel, Erik B. 2008: Regional Regulatory Initiatives Addressing GHG Leakage in the USA, in: Faure, Michael/Peeters, Marjan (eds): Climate Change and European Emissions Trading. Lessons for Theory and Practice, Cheltenham and Northampton, MA: Edward Elgar, 225-256.

Börzel, Tanja A./Risse, Thomas 2012: From Europeanisation to Diffusion: Introduction, in: West European Politics 35/1, 1-19.

Bye, Torstein/Bruvoll, Annegrete 2008: Multiple Instruments to Change Energy Behaviour: The Emperor's New Clothes? in: Energy Efficiency 1/4, 373-386.

Child, Rachel/Langniss, Ole/Klink, Julita/Gaudioso, Domenico 2008: Interactions of White Certificates with other Policy Instruments in Europe, in: Energy Efficiency 1/4, 283-295.

Clark, Duncan 2008: Obama or McCain: Who Would Make the White House Greener? The Guardian, 20 October 2008.

Cortell, Andrew P. 1997: Centralization, Access, and Influence: The Reagan Administration and the Semiconductor Industry's Trade Complaints, in: Governance 10/3, 261-285.

Dales, John H. 1968: Pollution, Property & Prices: An Essay in Policy-Making and Economics, Toronto: University of Toronto Press.

Damro, Chad 2012: Market Power Europe, in: Journal of European Public Policy 19/5, 682-699.

Damro, Chad/Luaces Méndez, Pilar 2003: Emissions Trading at Kyoto: From EU Resistance to Union Innovation, in: Environmental Politics 12/2, 71-94.

Depledge, Joanna 2000: Tracing the Origins of the Kyoto Protocol: An Article-by-Article Textual History. UNFCC/TP/2000/2, New York, NY: United Nations.

Deutsch, Karl W. 1966: The Nerves of Government. Models of Political Communication and Control, New York, NY: The Free Press.

Dolowitz, David P. 2006: Bring Back the States: Correcting for the Omissions of Globalization, in: International Journal of Public Administration 29/4-6, 263-280.

Dowding, Keith 1995: Model or Metaphor? A Critical Review of the Policy Network Approach, in: Political Studies 43/1, 136-158.

Ellerman, A. Denny 2000: Markets for Clean Air. The U.S. Acid Rain Program, Cambridge: Cambridge University Press.

Ellerman, A. Denny/Buchner, Barbara K. 2007: The European Union Emissions Trading Scheme: Origins, Allocation, and Early Results, in: Review of Environmental Economics and Policy 1/1, 66-87.

Engel, Kirsten H./Orbach, Barak Y. 2008: Micro-Motives and State and Local Climate Change Initiatives, in: Harvard Law & Policy Review 2/1, 199-137.

European Council 2003: Directive 2003/87/EC of 13 October 2003 on establishing a scheme for greenhouse gas emission allowance trading within the Community and amending Council Directive 96/61/EC.

European Council 2009: Directive 2009/29/EC of 23 April 2009 on amending Directive 2003/87/EC so as to improve and extend the greenhouse gas emission allowance trading scheme of the Community.

Faure, Michael/Peeters, Marjan 2008: Introduction, in: Faure, Michael/Peeters, Marjan (eds): Climate change and European Emissions Trading. Lessons for Theory and Practice, Cheltenham and Northampton, MA: Edward Elgar, 3-16.

Finnemore, Martha/Sikkink, Kathryn 1998: International Norm Dynamics and Political Change, in: International Organization 52/4, 887-917.

Gilardi, Fabrizio 2012: Transnational Diffusion: Norms, Ideas, and Policies, in: Carlsnaes, Walter/Risse, Thomas/Simmons, Beth (eds): Handbook of International Relations, London, Thousand Oaks, CA and New Delhi: SAGE Publications.

Gilardi, Fabrizio/Füglister, Katharina/Luyet, Stéphane 2009: Learning From Others: The Diffusion of Hospital Financing Reforms in OECD Countries, in: Comparative Political Studies 42/4, 549-573.

Gurowitz, Amy 2006: The Diffusion of International Norms: Why Identity Matters , in: International Politics 43/3, 305-341.

Harrison, Kathryn 2007: The Road not Taken: Climate Change Policy in Canada and the United States, in: Global Environmental Politics 7/4, 92-117.

Harrison, Kathryn 2010: The United States as Outlier: Economic and Institutional Challenges to US Climate Policy, in: Harrison, Kathryn/McIntosh Sundstrom, Lisa (eds): Global Commons, Domestic Decisions. The Comparative Politics of Climate Change, Cambridge, MA and London: The MIT Press, 67-104.

Hays, Scott P. 1996: Influences on Reinvention During the Diffusion of Innovations, in: Political Research Quarterly 49/3, 631-650.

Howlett, Michael/Ramesh, M. 2003: Studying Public Policy: Policy Cycles and Policy Subsystems, Toronto: Oxford University Press.

Immergut, Ellen M. 1990: Institutions, Veto Points, and Policy Results: A Comparative Analysis of Health Care, in: Journal of Public Policy 10/4, 391-416.

Katz, Elihu/Levin, Martin L./Hamilton, Herbert 1963: Traditions of Research on the Diffusion of Innovation, in: American Sociological Review 28/2, 237-252.

Kelemen, Daniel R. 2010: Globalizing European Union Environmental Policy, in: Journal of European Public Policy 17/3, 335-349.

Knill, Christoph/Tosun, Jale 2009: Hierarchy, Networks, or Markets: How Does the EU Shape Environmental Policy Adoptions Within and Beyond its Borders? in: Journal of European Public Policy 16/6, 873-894.

Lavenex, Sandra 2011: Concentric Circles of Flexible 'EUropean' Integration: A Typology of EU External Governance Relations, in: Comparative European Politics 9/4, 372-393.

Lavenex, Sandra/Lehmkuhl, Dirk/Wichmann, Nicole 2009: Modes of External Governance: A Cross-National and Cross-Sectoral Comparison, in: Journal of European Public Policy 16/6, 813-833.

Lavenex, Sandra/Schimmelfennig, Frank 2009: EU Rules Beyond EU Borders: Theorizing External Governance in European Politics, in: Journal of European Public Policy 16/6, 791-812.

Lavenex, Sandra/Wichmann, Nicole 2009: The External Governance of EU Internal Security, in: Journal of European Integration 31/1, 83-102.

Levi, Margaret 1997: A Model, a Method, and a Map: Rational Choice in Comparative and Historical Analysis, in: Lichbach, Mark I./Zuckerman, Alan S. (eds): Comparative Politics. Rationality, Culture, and Structure, Cambridge, New York, NY and Melbourne: Cambridge University Press, 19-41.

Levy, Jack S. 1994: Learning and Foreign Policy: Sweeping a Conceptual Minefield, in: International Organization 48/2, 279-312.

Löfstedt, Ragnar E./Vogel, David 2001: The Changing Character of Regulation: A Comparison of Europe and the United States, in: Risk Analysis 21/3, 399-405.

March, James G./Olsen, Johan P. 1989: Rediscovering Institutions. The Organizational Basis of Politics, New York, NY: The Free Press.

Meckling, Jonas 2011: Carbon Coalitions. Business, Climate Politics, and the Rise of Emissions Trading, Cambridge, MA and London: The MIT Press.

Meseguer, Covadonga 2006: Rational Learning and Bounded Learning in the Diffusion of Policy Innovations, in: Rationality and Society 18/1, 35-66.

Meseguer, Covadonga/Gilardi, Fabrizio 2009: What is New in the Study of Policy Diffusion? in: Review of International Political Economy 16/3, 527-543.

Oberthür, Sebastian/Pallemaerts, Marc 2010: The EU's Internal and External Climate Policies: A Historical Overview, in: Oberthür, Sebastian/Pallemaerts, Marc (eds): The New Climate Policies of the European Union. Internal Legislation and Climate Diplomacy, Brussels: Brussels University Press, 27-64.

Office of Governor Arnold Schwarzenegger 2009: Press Release 'Gov. Schwarzenegger Send Letter to AB 32 Economic and Allocation Advisory Committee', 22 May 2009.

Paltsev, Sergey/Reilly, John M./Jacoby, Henry D./Ellerman, A. Denny/Tay, Kok Hou 2003: Emissions Trading to Reduce Greenhouse Gas Emissions in the United States: The McCain-Lieberman Proposal, in: MIT Joint Program on the Science and Policy of Global Change Report No. 97, June 2003, Cambridge, MA.

Polillo, Simone/Guillén, Mauro F. 2005: Globalization Pressure and the State: The Worldwide Spread of Central Bank Independence, in: The American Journal of Sociology 110/6, 1764-1802.

Princen, Sebastiaan/Rhinard, Mark 2006: Crashing and Creeping: Agenda-Setting Dynamics in the European Union, in: Journal of European Public Policy 13/7, 1119-1132.

Rabe, Barry G. 2009: Second-Generation Climate Policies in the States: Proliferation, Diffusion, and Regionalization, in: Selin, Henrik/VanDeveer, Stacy D. (eds): Changing Climates in North American Politics. Institutions, Policymaking, and Multilevel Governance, Cambridge, MA and London: The MIT Press, 67-86.

Risse-Kappen, Thomas 1994: Ideas Do Not Float Freely: Transnational Coalitions, Domestic Structures, and the End of the Cold War, in: International Organization 48/4, 185-214.

Schimmelfennig, Frank 2009: Europeanization Beyond Europe, in: Living Reviews in European Governance, 5-28.

Schimmelfennig, Frank/Sedelmeier, Ulrich 2004: Governance by Conditionality: EU Rule Transfer to the Candidate Countries of Central and Eastern Europe, in: Journal of European Public Policy 11/4, 661-679.

Schmalensee, Richard/Joskow, Paul L./Ellerman, A. Denny/Montero, Juan Pablo/Bailey, Elizabeth M. 1998: An Interim Evaluation of Sulfur Dioxide Emissions Trading, in: Journal of Economic Perspectives 12/3, 53-68.

Sedelmeier, Ulrich 2006: Europeanisation in New Member and Candidate States, in: Living Reviews in European Governance, 4-28.

Selin, Henrik/VanDeveer, Stacy D. 2009: Climate Leadership in Northeast North America, in: Selin, Henrik/VanDeveer, Stacy D. (eds): Changing Climates in North American Politics. Institutions, Policymaking, and Multilevel Governance, Cambridge, MA and London: The MIT Press, 3-22.

Shipan, Charles R./Volden, Craig 2008: The Mechanisms of Policy Diffusion, in: American Journal of Political Science 52/4, 840-857.

Simon, Herbert A. 1965: Administrative Behavior. A Study of Decision-Making Processes in Administrative Organiztions, New York, NY: The Free Press.

Skœrseth, Jon Birger/Wettestad, Jørgen 2009: The Origin, Evolution and Consequences of the EU Emissions Trading System, in: Global Environmental Politics 9/2, 101-122.

Skœrseth, Jon Birger/Wettestad, Jørgen 2010: The EU Emissions Trading System Revisited (Directive 2009/29/EC), in: Oberthür, Sebastian/Pallemaerts, Marjan (eds): The New Climate Policies of the European Union. Internal Legislation and Climate Diplomacy, Brussels: Brussels University Press, 65-92.

Steurer, Reinhard 2003: The US's Retreat from the Kyoto Protocol: An Account of a Policy Change and its Implications for Future Climate Policy, in: European Environment 13/6, 344-360.

Stoett, Peter J. 2009: Looking for Leadership: Canada and Climate Change Policy, in: Selin, Henrik/VanDe-

veer, Stacy D. (eds): Changing Climates in North American Politics. Institutions, Policymaking, and Multilevel Governance, Cambridge, MA and London: The MIT Press, 47-64.

Sussman, Glen 2004: The USA and Global Environmental Policy: Domestic Constraints on Effective Leadership, in: International Political Science Review 25/4, 349-369.

Tews, Kerstin 2005: The Diffusion of Environmental Policy Innovations: Cornerstones of an Analytical Framework, in: European Environment 15/2, 63-79.

Tietenberg, Thomas H. 2006: Emissions Trading: Principles and Practices, Washington, DC: Resources for the Future Press.

Torney, Diarmuid 2012: Assessing EU "Leadership" on Climate Change: The Limits of Diffusion in EU Relation with China and India, in: KFG Working Paper Series No. 46, September 2012, Kolleg-Forschergruppe "The Transformative Power of Europe", Berlin: Freie Universität.

van Asselt, Harro 2010: Emissions Trading: The Enthousiastic Adoption of an 'Alien' Instrument, in: Jordon, Andrew/Huitema, Dave/van Asselt, Harro/Rayner, Tim/Berkhout, Frans (eds): Climate Change Policy in the European Union. Confronting the Dilemmas of Mitigation and Adaptation? Cambridge: Cambridge University Press, 125-144.

Vogel, David 1997: Trading Up and Governing Across: Transnational Governance and Environmental Protection, in: Journal of European Public Policy 4/4, 556-571.

United States Senate 1997: S. Res. 98: Expressing the sense of the Senate regarding the conditions for the United States becoming a signatory to any international agreement on greenhouse gas emissions under the United Nations Framework Convention on Climate Change, 105th Congress.

Weyland, Kurt 2009: The Diffusion of Revolution: '1848' in Europe and Latin America, in: International Organization 63/3, 391-423.

Wurzel, Rüdiger K. W./Connelly, James 2011: Introduction: European Union Political Leadership in International Climate Change Politics, in: Wurzel, Rüdiger K. W./Connelly, James (eds): The European Union as a Leader in International Climate Change Politics, London and New York, NY: Routledge, 3-20.

The Kolleg-Forschergruppe - Encouraging Academic Exchange and Intensive Research

The Kolleg-Forschergruppe (KFG) is a new funding programme launched by the German Research Foundation in 2008. It is a centrepiece of the KFG to provide a scientifically stimulating environment in which innovative research topics can be dealt with by discourse and debate within a small group of senior and junior researchers.

The Kolleg-Forschergruppe „The Transformative Power of Europe" brings together research on European affairs in the Berlin-Brandenburg region and institutionalizes the cooperation with other universities and research institutions. It examines the role of the EU as promoter and recipient of ideas, analyzing the mechanisms and effects of internal and external diffusion processes in three research areas:

• Identity and the Public Sphere
• Compliance, Conditionality and Beyond
• Comparative Regionalism and Europe's External Relations