IDEAS OR INTERESTS?

EXPLAINING MEMBER STATE PREFERENCES IN EUROPEAN ENVIRONMENTAL REGULATION

By

DOMINIK TEUBER

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ABSTRACT OF THE THESIS

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Explaining Member State Preferences in European Environmental Regulation

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Thesis Director:

Prof. Paul Poast

This thesis contributes to the literature on everyday policy-making in the European Union by providing insights into the determinants of member state preferences on environmental issues that are negotiated in the Council of the European Union. By presenting the first large-scale quantitative study of a whole sector, it acknowledges the sector-specificity of European political competition and helps in developing a more sophisticated understanding of policy-making in the European Union.

I isolate 76 issues in legislative proposals that deal with environmental regulation from the DEUII dataset and use the member state preferences contained in it to test a theoretical framework made up of three theories of European integration and political contestation. I apply Liberal Intergovernmentalism, Neofunctionalism as well as the Constructivist argument that ideas matter to member state preference formation in everyday environmental policy-making and only find support for Liberal Intergovernmentalism.

Random-effects generalized least squares regression as well as random-effects ordered logistic regression reveal that only Liberal Intergovernmentalism in its regulatory formulation is supported, while the expectations of Neofunctionalism and Constructivism are not confirmed. In substantive terms, this means that countries with lower levels of development and therefore lower environmental standards show stronger opposition towards European environmental regulation when the affected economic sector is important for the national economy, but stronger support when they have high levels of development and therefore higher environmental standards, ceteris paribus. Thus, member states' dominant reasoning follows the goal to avoid adaptation costs for their economy.

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1 Introduction

With the European Union (EU) becoming a more and more politicized and fully elaborated polity, scholars have put increasing effort into understanding how its everyday political process works. One critical task that has to be accomplished in this regard is to measure the preferences of the relevant actors and to understand how these preferences are formed.

Such knowledge is important as preferences create the base of every negotiation. Any outcome can only be fully explained when it is known who wants what and for what reason. The distribution of preferences determines patterns of interaction in negotiations, how coalitions are built and which negotiation strategies actors choose. In combination with insights from the scholarly work on negotiation processes in the EU, knowing how these preferences are developed thus allows one to make predictions about the outcomes of decision-making processes. Reaching this goal would not only mean a major progress for European Union research, but could also help policy-makers in choosing better negotiation strategies.

The importance of preferences of the actors involved in EU policy-making has become particularly evident with the rise of co-decision. In this legislative procedure, the European Parliament and the Council of Ministers (Council in the following), the organ in which member state governments are represented, are equal participants and operate similar to a parliament with two chambers. The increasing influence of the European Parliament led to the emergence of a new research field that focuses on the voting behavior of parliamentarians and tried to identify distinct patterns (McElroy 2007, Hix et al. 2009). These efforts are facilitated by the availability of data as the preferences of parliamentarians are public in the form of voting records (Carrubba et al. 2006: 692).

The case of the Council, however, is more difficult. For many years, voting records have been kept secret. This has changed several years ago, which created new opportunities for including information on preferences in studies on the Council (e.g. Hagemann 2007, 2008). Yet, the additional value this new data source created is limited. Decision-making in the Council has always been driven by a strong consensus norm that usually unfolds early in the process (Zimmer et al. 2005: 406). Thus, voting records rarely indicate member states' actual preferences.

The "Decision-Making in the European Union" (DEU) (Thomson et al. 2006) project and its successor, DEUII (Thomson et al. 2012), were initiated to address this problem. Via expert surveys, the creators of these datasets measured, inter alia, the initial preferences of member state representatives on numerous controversial issues.

While most scholars use these datasets to assess who wins and who loses in the Council, their potential for identifying the sources of preferences in everyday policy-making has largely been neglected. Work on member state preferences mainly focuses on the pro-/anti-integration dimension in the big intergovernmental conferences on reforms of the EU treaties the EU is built on (Finke 2009, Franchino 2013, Hug and König 2002), while scholars interested in the Council usually aim at detecting general dimensions that define the political space. Given that policy-making in the EU is highly sector-specific (Treib 2010: 138), more knowledge about how member states form their preferences across policy sectors is needed to fully understand the everyday policy process in the EU.

This thesis addresses this gap in the literature by undertaking a comprehensive examination of the determinants of those preferences indicated in the DEUII dataset that refer to environmental issues. This EU policy field is particularly interesting as it is one of the most strongly integrated and therefore one of the most important ones (Callanan 2011: 20). Besides, it is highly diverse as it concerns questions of economic redistribution, regulatory harmonization, functional problem-solving as well as ideology and therefore allows for the test of a wide array of theories on how different national characteristics influence member states' policy positions in the Council.

In particular, I apply three theories of European integration and political contestation in the EU to preference formation for everyday environmental policy-making in the Council: Liberal Intergovernmentalism, Neofunctionalism, and Constructivism. Strikingly, a competitive theory test reveals that only the regulatory formulation of Liberal Intergovernmentalism is supported. My quantitative analysis shows that countries with lower levels of development and therefore lower environmental standards show stronger opposition towards European environmental regulation when the affected economic sector is important for the national economy, but stronger support when they have high levels of development and therefore higher environmental standards, ceteris paribus. Thus, member states' dominant reasoning follows the goal to avoid adaptation costs for their economy.

In the remainder, I will first review the literature on the role and on the determinants of member state preferences in EU policy-making. Building on it, I will develop my theoretical framework and derive specific hypotheses for the environmental sector. Afterwards, I will give a brief summary of the main features of the DEUII dataset and explain how I isolated the dependent variable. I will then introduce the independent variables and my estimation approach. This will be followed by the presentation and interpretation of my results as well as some robustness checks. After a critical discussion of my findings, I will end with a short conclusion.

2 Literature

The fundamental question why countries are willing to give up sovereignty and integrate in the EU has been a dominant topic in European Union research for decades. Just like the Community itself, the scholarly debates have changed continuously. While the early approaches from the 1960's onwards focused on the general question why European integration occurred, the 1990's and early 2000's saw a move towards explanations of the ongoing process of integration such as Liberal Intergovernmentalism, Neofunctionalism, and Constructivism. This development was mostly due to the revived process of integration that came with the Single European Act and the Maastricht Treaty, which represent major steps in the process of creating a European polity. With the latter's further development, scholars moved towards more fine-grained analyses of European policy-making such as Multi-Level Governance (Benz and Eberlein 1999, Hooghe and Marks 2001) or different forms of Institutionalism (Pierson 1996, Schimmelfennig and Thomas 2009) that were informed in particular by the previously mentioned three major modern integration theories (Diez and Wiener 2004). The currently applied fine-grained analyses of the European polity focus on policymaking processes and the influence exerted by different actors. Scholars mostly aim at explaining outcomes by testing bargaining theories (Schneider et al. 2010, Lewis 1998), mapping the European political space (Hooghe et al. 2002, Hix and Noury 2009), investigating the political processes in the increasingly powerful European Parliament (Proksch and Slapin 2010, Veen 2011a), or assessing the influence of lobbyism on the European level (Klüver 2011, 2012, Bunea 2012).

Almost all of these studies use and measure member state preferences implicitly or even explicitly, but usually simply assume that these preferences follow, for example, economic rationales or use datasets that contain measurements of preferences. What they thereby neglect is that there is hardly any research on how preferences in everyday policy-making are actually formed and, consequently, how they should be operationalized. In particular, there are almost no findings on how preferences differ across sectors, which is especially relevant due to the highly sector-specific nature of EU policy-making. However, given their importance for doing EU research, it is necessary to learn about how they are formed for being able to better understand EU policy-making.

In this context, it is useful to take a step back and reconsider the dominant modern integration theories Liberal Intergovernmentalism, Neofunctionalism, and Constructivism. Although they are primarily focused on the integration process in general and preference formation in the context of the big intergovernmental conferences, they also give helpful theoretical insights into what might determine member state preferences in the negotiation of concrete policy proposals in the Council. Liberal Intergovernmentalism goes back to the work of Andrew Moravcsik (1993, 1998) and is built on the assumption of rational state behavior (Moravcsik 1993: 481). Following the basic model of a two-level game, governments are argued to interact with domestic producer groups that articulate their policy preferences (ibid.: 517). The government's task thereby is to aggregate these different group preferences to a single government position (ibid.: 483). Thus, it is the pattern of preferences the economic groups hold and their relative influence that are decisive for the final position the government defends in European negotiations (ibid.: 517).

Consequently, there are especially two things one needs to know for being able to formulate expectations about member state preferences. First, it needs to be specified which economic groups do and which do not favor European integration. Usually, it is argued that this decision is based on a simple cost-benefit analysis. Those groups who benefit from increased European trade and cooperation support integration, while those who suffer from it will oppose it (Finke 2009: 485). Second, one needs to identify those groups that have high influence and also salience by investigating a country's politico-economic structure (Forster 1998: 350).

While Liberal Intergovernmentalism depicts European integration as a politicized process that involves hard bargaining both on the domestic and on the intergovernmental level, Neofunctionalism sees it as mostly élite- and problem-driven (Haas 1958). Integration is argued to be a consequence of bureaucrats' and politicians' assessments of costs and benefits "in a dynamic context of problem solving, spillover, and learning" (Marks and Steenbergen 2002: 884). Nonetheless, like Liberal Intergovernmentalism it sees the interests of a particular set of actors as being decisive for integration.

The core of the Neofunctionalist argument is that, due to increasing internationalization, more and more policy problems have a transboundary character and therefore cannot be resolved adequately on the national level. As a consequence, governments are argued to transfer parts of their sovereignty to supranational bodies in which bureaucrats solve problems based on their expertise (Haas 1961). More precisely, the causal chain proposed by Neofunctionalism starts with several members of the élite – such as politicians, bureaucrats, and industry leaders – recognizing that a problem can no longer be solved at the national level. These élite representatives then push for the creation of a supranational body, find each other and build a pro-integration coalition. When the problem is important enough and the coalition is able to generate sufficient support, supranational institutions are created (Stone Sweet and Sandholtz 1997: 301).

Thus, European integration is seen as a functional solution to international policy externalities and demand for and therefore also preferences in favor of integration are a consequence of perceived problem pressure. Another important feature of the process of European integration as seen from Neofunctionalism is that it is to some extent self-reinforcing via spillover effects (Haas 1958: 297). Increased integration of one policy area is likely to create new transboundary policy externalities. For example, higher transboundary economic activity often creates more transnational environmental problems that can no longer be solved at the national level.

Over the years, Neofunctionalism moved from a purely functionalist perspective towards a broader approach that also incorporates identity-related factors as another selfreinforcing mechanism. The increasing interaction of members of the élite is proposed to alter their identities by socializing them as "Europeans" being more favorable towards supranational problem solutions (Marks and Steenbergen 2002: 884).

This clearly constructivist argument was further developed by Stone Sweet and Sandholtz (1997), who finally incorporated Haas' (1958, 1961) Neofunctionalism into a new constructivist theory that became known as Supranationalism. In short, it argues that the increasing transnational activity pushes the supranational institutions of the EU to become more active and "to extend the domain of supranational rules" (Stone Sweet and Sandholtz 1997: 299). Over time, the supranational institutions become more autonomous and member states give up their resistance to transferring competences because of rising costs of maintaining disparate national rules (ibid.: 300).

Although the latter statement gives some information on why and when member states do not oppose European integration, Supranationalism is clearly focused on the activities of and socialization processes within the supranational institutions. Thus, Supranationalism in today's form does not offer clear expectations about the preferences of member states as it focuses on another level of analysis. Yet, the causal mechanism proposed by Neofunctionalism and incorporated in Supranationalism does by arguing that national élites are more in favor of integration when a transboundary externality is more pressing. In order to be more precise, in the remainder I will focus on the somewhat older theory of Neofunctionalism instead of the broader and newer Supranationalism. Yet, there is also a particularly constructivist branch of the literature that does not deal with European integration per se, but with political contestation in the EU. In general, it argues that ideas matter for government preferences (Aspinwall 2007: 90) and has to be seen in the broader context of a debate about the lines along which political conflict in the Council (and also in the Parliament) emerges. This debate can be divided into two camps (Lindgren and Persson 2008: 32). The rationalist one proposes a territorial division that is basically following Liberal Intergovernmentalism, arguing that the richer countries of the North are in favor of market opening, lower subsidies and higher levels of regulation, while the poorer countries from the South favor protectionism, subsidies, and lower levels of regulation (Treib 2010: 123).

The second camp follows a constructivist line of argumentation by proposing that ideas are decisive for outcomes in the Council. Which ideas matter the most, however, is still under debate. Some argue that the dominant conflict line is the left-right dimension (Hix 1999, Aspinwall 2002, 2007). Representatives of the so-called "International Relations School", on the other hand, propose that the relevant dimension is pro-/anti-integration (Hooghe 2001, Marks and Steenbergen 2002). Finally, some suggest that both dimensions are fused into a single one that is unique to the European political space (Tsebelis and Garrett 2000).

What this literature review shows is that there are numerous theories that make very different predictions about which member state characteristics determine preferences in EU policy-making. What they all have in common, however, is that they aim at drawing general pictures of the integration process or political contestation in Europe,

respectively. Besides, Liberal Intergovernmentalism and Neofunctionalism have a clear focus on the grand bargains that deal with reforms of the EU treaties. Thus, in order to apply them to everyday environmental policy-making, it is necessary to develop a theoretical framework that is adapted to the specific characteristics of this sector and that allows to derive falsifiable hypotheses. This will be accomplished in the next section.

3 Theory and Hypotheses

Following the preceding discussion, my theoretical framework includes three theories of European integration and political contestation: Liberal Intergovernmentalism, Neofunctionalism, and Constructivism in the form of ideas. Subsequently, I will formulate five hypotheses that are derived from the theories' expectations about the determinants of member state preferences and adapted to everyday environmental policy-making in the Council.

Although Moravcsik has insisted that Liberal Intergovernmentalism only applies to the history making bargains (1998: 8), the theory's underlying logic has often been applied to everyday politics (Copsey and Haughton 2009: 268). Treib (2010), for example, found some support for Liberal Intergovernmentalism in a study on the Convention on EU Social Policy (ibid.: 119), while Miklin (2009) used it successfully for explaining outcomes of Council negotiations on the EU Services Directive. Particularly interesting is Lindgren and Persson's (2008) study of the Council's structure of conflict over the REACH system, the EU's far-reaching chemicals policy, as it deals with an

environmental issue. Although they only found weak support for Liberal Intergovernmentalism, their study shows that the theory can very well be applied to environmental policy-making.

The crucial task thereby is to formulate expectations about who will be in favor of European environmental regulation. In general, governments are expected to defend the national interest by opposing stricter European environmental policies when they incur considerable costs on their economy. The domestic economic groups that are affected by the new regulation and therefore faced with additional costs articulate their opposition and the more powerful they are, the more the government has to consider their interest. Following the dominant approach in the literature (see, for instance, Lindgren and Persson 2008, Spendzharova 2012), I therefore expect that the more important these sectors are for a national economy and therefore the more powerful they are, the more likely a government is to oppose stricter environmental policies. Thus, my first hypothesis is:

H1a: The more important the economic sector affected by an environmental policy proposal is for the national economy, the stronger will be a member state's opposition to this proposal.

One should be aware that this hypothesis is based on the assumption that the higher European standard always imposes costs on the national economies of all member states. Yet, it may also be the case that some countries already have high national standards and that a new harmonized regulation therefore would simply extend these standards to all member states. In what I term the regulatory formulation of Liberal Intergovernmentalism, Moravcsik (1998: 37f) argues that in regulatory policy fields like environment member states with high standards will defend their higher levels of protection, while member states with lower levels of protection will argue against the introduction of stricter regulations. Besides, in regulatory areas governments not only have to consider the additional costs created for the economy, but also the benefits for public health for which, for example, environmental groups will fight (Lindgren and Persson 2008: 35). Thus, member states might rather protect their national overall regulatory balance instead of only a particular economic sector.

This line of argumentation was taken up by the so-called "misfit school" (Börzel 2002). It makes a similar argument by saying that the "leaders" in environmental protection want to upload their high national standards to the European level to ensure that their economy competes with other European economies at the same high level of standards, while the "laggards" want to avoid the adaptation costs that stem from downloading new European standards that are higher than their national ones (Börzel 2002: 208).

The crucial variable in determining who already has high standards and who has low ones is the level of development (Moravcsik 1998: 37ff, Börzel 2002: 2008). Viewing this relation in combination with the standard formulation of Liberal Intergovernmentalism, I propose the following interaction effect:

H1b: Member states show higher support for stricter European environmental regulation when the economic sector affected is more important for the national economy and when they have higher levels of development, while member states show lower support the higher the importance of the economic sector and the lower their level of development. For Neofunctionalism, the expectations are much easier to derive as environmental policy is one of the classic examples for the spillover effect (Pollack 1994: 95). Economic integration has always been the driving force of the European integration project and therefore the area in which progress was made first and fastest (Jones and Verdun 2003: 81). More transboundary economic activity in the European Single Market, however, also means more transboundary negative externalities in the form of environmental damage. It can affect the quality of air and water as these elements do not stop at borders. Besides, the free trade area can create incentives for a regulatory race to the bottom (Holzinger and Knill 2004: 27ff). Such negative externalities create policy problems that can only be solved at the European level. As member states can be affected to a different degree, I hypothesize:

H2: The higher the member states' environmental problems in the area that is supposed to be regulated by a policy proposal, the more a member state supports stricter European environmental regulation.

The case for the constructivist argument that ideas matter is not as clear, unfortunately. As mentioned in the previous chapter, there is an ongoing debate about the dimension on which political competition takes place. Many studies find the left-right or a similar form of economic distribution dimension to be the dominant one in European politics (e.g. Hix 1999, Rovny 2012, Bakker 2012, Benoit and Laver 2007). This dimension might be helpful for mapping political contestation in Europe as a whole, but it appears to be too imprecise to assess the role of ideas in the environmental sector. In European politics,

being more left does not necessarily mean to be more supportive of environmental protection, and vice versa.

Thus, it is not surprising that several studies identified similar, but slightly different dimensions that go beyond the traditional left-right dimension. They carry different names such as "New politics" (Budge and Laver 1992), "postmaterialism" (Warwick 2002: 101), or "redistribution" (Veen 2011b) and all include the issue of environmental protection.

This indicates two things that are of particular importance. First, if a member state government is pro or contra stricter environmental protection cannot be determined by analyzing its position on the left-right dimension. Second, the issue of environmental protection matters in the European political space. Thus, it is appropriate to propose the following hypothesis:

H3: The more a member state government's ideology is in favor of environmental protection, the higher is its support for stricter European environmental regulation.

Besides the previously mentioned dimensions with a somewhat economic focus, the pro-/contra European integration dimension is usually found to be the second major dimension that dominates the European political space (Hooghe et al. 2002, Hooghe and Marks 2009, Rovny 2012). Although Tsebelis and Garrett (2000) argue for the left-right dimension that it is fused with the European integration dimension to a single European policy-making dimension, I will treat environmental protection and European integration as being separate. There is basically no theoretical reason for assuming that, for example,

parties more in favor of environmental protection on the national level also are in favor of more European integration. These issues mobilize very different domestic groups what "undermines our ability to collapse these dimensions of conflict into one new dimension of contestation" (Bakker et al. 2012: 224). Thus, my last hypothesis will be:

H4: The more a member state government's ideology is in favor of European integration, the higher is its support for stricter European environmental regulation.

4 Variables

4.1 Dependent Variable

The dependent variable in my analysis will be the preferences member states hold in the Council towards contested issues in European environmental policy proposals. The data for the operationalization of this variable are taken from the "Decision-making in the European Union II (DEUII)" (Thomson et al. 2012) dataset.

DEUII contains measurements of the preferences the key actors in the EU legislative process – the European Commission, the European Parliament, and the member states – held on 331 controversial issues that were raised by 125 legislative proposals brought forward by the European Commission between 1996 and 2008 (ibid.: 604). This information is based on 349 semi-structured interviews in which experts were asked to place actor preferences on an issue-specific scale ranging from 0 to 100, with 0 indicating a preference for the solution with the lowest degree of harmonized regulation possible

given the respective legislative proposal and 100 meaning a preference for the highest degree of harmonized regulation (ibid.: 608).

An important aspect of this dataset is that it reports revealed preferences as "experts relied mainly on the stances taken by those actors when the legislative proposal was introduced, or as soon as the actors took a stance after the introduction" (ibid.: 611) and therefore at the earliest stage of the negotiation process. Yet, it is possible that member state representatives strategically expressed preferences that differed from their actual ones. Although the authors argue that their approach also identifies at least some of actors' underlying interests and several studies found the DEU approach to be reflecting national preferences very well (Thomson 2011, Bailer 2011, König et al. 2007, Golub 2012), the possible objection of limited validity cannot be completely discarded (Thomson et al. 2012: 611).

Another aspect of the DEUII dataset that is of particular importance for my analysis is that, according to the authors, it allows for the detection of patterns of member state preferences by comparing the positions on the scale across issues (Thomson et al. 2012: 65). Substantive interpretations are not feasible, of course, but it is possible to test hypotheses like mine.

DEUII covers a very diverse range of policy areas, with some featuring more prominently than others (Thomson et al. 2012: 608). Thus, I had to isolate those issues dealing with questions of environmental regulation. I did so by reading the DEUII complementary document that gives a brief summary of the issues and the substantive meaning of the policy positions for every issue. In many cases it was evident if a respective issue was an environmental one. When it was not, I read the actual legislative proposal of the Commission which can be accessed via the PreLex internet platform. I followed a broad conceptualization of environmental issues that includes newer policy areas such as climate protection, biodiversity, natural resources management, animal rights, or energy efficiency, but also traditional ones such as air and water quality, waste management, and hazardous materials. From this follows that my restricted DEUII dataset contains policy issues that are under the responsibility of different directorates-general such as environment, agriculture, fisheries, and internal market.

Overall, the procedure left me with 76 issues and 1,281 observations of member state preferences. Unfortunately, the DEUII dataset did not always report preferences for all countries that were member at the respective point in time as sometimes countries simply did not express a preference. Thus, the 1,281 observations do not represent all observations that would have been possible for the 76 issues at hand.

4.2 Independent Variables

Given the high specificity and diversity in terms of economic sectors concerned and environmental problems addressed by the different legislative proposals, it is necessary to develop very fine-grained indicators. While all of them have to vary across the years that are covered, some are even issue-dependent.

The standard formulation of Liberal Intergovernmentalism is operationalized as the importance of the economic sector concerned by a policy for a country's overall economy

(Lindgren and Persson 2008, Spendzharova 2012). This is measured as a sector j's share in a respective country i's gross value added in year t as reported by Eurostat. I followed this approach and named the resulting variable *Sector importance*.

To create this variable I had to identify those economic sectors that would be directly affected by an issue that is part of an environmental policy proposal. This information was sometimes evident from the issue summaries included in the complementary document of the DEUII dataset. The proposal COD/2005/283, for example, deals with energy-efficiency of road transport vehicles, thus it is obvious that vehicle manufacturers are mainly affected by it. In cases in which it was not as clear, I consulted the impact assessment documents that the preambles of the actual legislative proposals referred to. These were usually available on the website of the directorate-general that was in charge of the respective policy proposal and contained information on which economic sectors were expected to be affected the most. In cases where two or more were affected to a considerable degree, their shares in the country's gross added value were simply added up. A complete list of the economic sectors that were considered for every issue can be found in table A1 in the appendix.

As proposed in hypothesis H2, Neofunctionalism argues that higher environmental problem pressure will lead to more support for higher European standards. Thus, it is obvious that this argument ought to be operationalized by some form of indicator of environmental quality that I will term *Environmental Problems*.

Many existing studies simply use CO_2 emissions as an approximation (Knill and Tosun 2009, Hironaka 2002). Given the high issue-specificity of this study, however, such a

broad approach is inappropriate as no direct theoretical relationship can be established between, for example, a country's CO_2 emissions and its support for measures to increase water quality. Thus, a more fine-grained indicator that corresponds to the environmental problem addressed by a certain policy proposal is needed.

It is pretty difficult to find specific and reliable data sources for the different areas of environmental quality for the time period of 1996 until 2008, as a comprehensive collection of environmental data at the European level had not taken place before the mid 2000's. Nonetheless, there is a considerable amount of data available at Eurostat. In order to ensure reliability of the data across areas and due to time constraints, I concentrated my search on Eurostat and selected those indicators that fit the nature of the issue under discussion best.

For being able to make this judgment, I again read the issue summaries and the legislative proposals, if necessary. In many cases, the corresponding indicators were obvious. When an issue dealt with energy or fuel efficiency, for example, the indicator had to be the level of CO_2 emissions per capita. When an issue addressed the NO_x emissions, I chose the level of NO_x emissions per capita. In other cases, it was far more difficult. Particularly problematic was fisheries, as the issues included in the dataset all dealt with fishing quota and the protection of fishing grounds, but I was unable to identify a data source that indicates how endangered certain fishing grounds are and which countries exploit these. Thus, I used a measurement of the effort needed to catch a fish as an approximation to how endangered the fishing grounds nearby are. I used similar approximations in several cases in which data availability was limited. A list of the environmental quality indicators

used for every issue can be found in table A2 in the appendix and their selection can be justified on request.

An important aspect of these indicators is that they are measured in very different units and scales. In order to make them comparable across the environmental areas they concern, I normalized all indicators grouped by all observations with the same indicator. This means that, for example, I normalized all values of the indicator CO_2 emissions, then all values of the indicator group NO_x emissions, and so on.

Several steps were also necessary to derive my measurements of government ideology. The base was the Comparative Manifesto Project (CMP) dataset (Volkens et al. 2012) that measures party positions on a wide range of issues via document analyses of party manifestos. The reason why I selected to use CMP data instead of the slightly more valid expert surveys (Benoit and Laver 2006, Klingemann et al. 2006) was that my adjusted DEUII dataset covers a time span from 1996 until 2008 and that the CMP provides a rich time-series of policy positions that goes far beyond the period of coverage of all expert surveys available (Dinas and Gemenis 2010: 428). As the only dataset currently available, CMP covers party positions on the relevant issues, environmental protection and European integration, for all member states during the whole period of observation.

Due to the distinctiveness of the two issue dimensions of environmental protection and European integration (Bakker et al. 2012: 224), I developed two indicators of government ideology: *Ideas – EU* and *Ideas – Environment*. I thereby proceeded as follows.

In the CMP approach, the party manifestos are divided into discrete textual units known as "quasi-sentences" (Lowe et al. 2011: 126). Each quasi-sentence contains one policy position and is assigned to the corresponding category out of the 56 contained in the coding scheme. For several issues there are two categories that are arranged in a confrontational manner. According to Lowe et al. (2011), whose approach I followed, one can use such a scheme to build scales from the raw counts reported by the CMP dataset. In the case of European integration, these two categories are per108 (European Community/Union: Positive) and per110 (European Community/Union: Negative).

For environmental protection, the case is not that clear as it is seen as a valence issue. This means that it is considered as being universally popular and therefore has no direct counterpart as "no party is likely to [...] call for trashing the ecosystem" (Lowe et al. 2011: 37). Thus, per501 (Environmental protection) is the only category contained in the dataset that refers directly to this issue. As a solution, Lowe et al. (2011) propose a scale with per416 (Antigrowth Economy: Positive) and per501 (Environmental Protection: Positive) on the side of "ecologism" and per410 (Productivity: Positive) on the opposite, "pro-growth" side (ibid.: 138).

Having established the relevant categories, the next step was to calculate the relative frequencies of categories, the number of quasi-sentences belonging to one specific category divided by the overall number of quasi-sentences, for all five categories and each manifesto. I then added 0.5 to all relative frequencies to create symmetrical scales (ibid.: 131) and, as proposed by Veen (2011a) and Linhart and Shikano (2009), took the log of these sums to decrease the scale's sensitivity to absolute changes in the quasi-

sentence counts. Finally, the last step of the scale-building procedure was to subtract the transformed relative frequencies of the contra category from those of the pro category. The calculation of a party i's position on a symmetrical policy scale derived from a manifesto m can be expressed formally as follows:

$$\begin{aligned} \Theta_{i,m} &= \log (P_{i,m} + 0.5) - \log (C_{i,m} + 0.5) \\ &= \log \frac{P_{i,m} + 0.5}{C_{i,m} + 0.5} \end{aligned}$$

with P and C being the relative frequencies of the pro and the contra categories.

To build my two scales of interest, P and C just had to be substituted by the respective relative frequencies for a party i in a manifesto m in the five categories previously identified. For the case of environmental protection, C stands for the "pro-growth" and P for the "ecologism" categories introduced above. With regard to "ecologism", it should be further noted that it is basically an index of the two relevant categories identified by Lowe et al. (2011), meaning that the relative frequencies of the two categories were simply added to receive P. In the EU case, C represents "European integration: Negative" and P "European integration: positive". Thus, higher values mean being more in favor of environmental protection and European integration, respectively.

Finally, as I am not interested in party positions per se but in government ideology, I needed to account for the fact that most countries had coalition governments during the observation period. Kim and Fording (2001) propose to derive the coalition government position X_q by weighting the policy position p of each coalition party i out of n coalition

parties by the party i's "power" in government, calculated as i's share of the coalition's seats in parliament, and then adding up the obtained scores of all coalition parties (ibid.: 161). Following Veen (2011a: 275), this can be expressed formally as

$$X_g = \sum_{i}^{n} \Theta_{i,m} \frac{Seats in Parliament_i}{Coalition's Seats in Parliament}$$

The data needed to calculate the weighting for each government coalition were taken from the ParlGov (Döring and Manow 2012) dataset. For the party positions, I used the CMP coding of the most recent party manifesto given the year of observation. As my dataset is in the country-year format, government changes during the year could not be perfectly represented. The rule I set was that a country was assigned the government ideology of the coalition that had been in place before the election when this election took place after June 30 and the ideology of the new coalition otherwise.

Beyond these four explanatory variables, I introduced two control variables. First, countries with a higher level of development are often associated with being more in favor of environmental protection (Lindgren and Persson 2008: 43). As mentioned in the section on the regulatory formulation of Liberal Intergovernmentalism, these countries usually have stricter environmental regulations and can be seen as "leaders", while poorer countries favor lower levels of environmental regulation and therefore can be considered as "laggards" (Liefferink and Andersen 1998, Sbragia 2000). Consistent with the literature, level of development will be operationalized using GDP per capita (Börzel 2002: 208). This variable will also be used for testing the interaction effect with *Sector Importance* proposed in hypothesis H1b.

Finally, it could also be possible that member state governments want to avoid further burdens induced by regulatory costs not in general, but only at the time when they were proposed as the domestic economy was not in good shape (Hosli and Arnold 2010: 619). This argument will be operationalized as the GDP growth rate.

Dependent variable	Mean	Std. Dev.	Min.	Max.	Ν	Source
Member state preference	42.34	41.88	0	100	1281	DEUII
Explanatory variable	<i>?S</i>					
Sector importance	1.26	1.57	0.00	13.5	1137	Eurostat
Environmental Problems	0.09	0.12	0	1	1196	Eurostat
Ideas – EU	2.36	1.64	-0.94	5.96	1188	CMP, ParlGov
Ideas – Environment	1.21	1.41	-2.32	5.55	1188	CMP, ParlGov
Control variables						
GDP per capita (1,000 Euros)	21.45	11.73	2.6	78	1281	Eurostat
Growth (% GDP)	3.57	2.57	-1.60	12.00	1280	Eurostat
New Member: 2004	0.05	0.22	0	1	1281	-
Newest Member	0.28	0.45	0	1	1281	-

Table 1: Overview of the independent variables and descriptive statistics

Remarks: Std. Dev. = Standard Deviation; Min. = Minimal Value; Max. = Maximal Value. Quantities reported for Environmental Problems refer to those arrived at by normalization.

Except the two ideology measurements, all variables were lagged by one year as it would be unrealistic to assume that they unfold their effect immediately. An overview of all independent variables and descriptive statistics are provided in table 1.

5 Estimation Approach

The structure of my dataset is unusual and therefore needs some further explication to clarify my model selection. The units of analysis are the member states, thus the dependent and all independent variables are measured at this level. The member states are observed over time as the observation period ranges from 1996 until 2008, yet my dataset does not have a panel structure. For most years, there is more than one observation of the member states, and for 1997, 2001, and 2002 there are no observations. Thus, the observations are not nested within panels.

It is reasonable to suspect that there is unobserved heterogeneity due to country characteristics that are not captured by my explanatory and control variables, which in turn could bias my results. In general, there are two techniques that allow one to control for this problem: fixed-effects and random-effects regression. Especially because observations are not nested within the panels, the often-applied fixed-effects approach is impractical in my case (Wansbeek and Kapteyn 1989: 342). A random-effects regression is a promising alternative as it is able to deal with the problem previously mentioned and at the same time allows to estimate intercepts that differ across member states, thereby controlling for unobserved heterogeneity (Arceneaux and Nickerson 2009: 183).

The assumption of independent observations is further constrained by two potential sources of clustering. First, a country's placement on the preference scale is dependent on the issue for which it was coded. The dependent variable indicates member states' policy stances relative to the options available within a certain issue and the preference scores do not allow for a direct substantive comparison of policy positions across issues. Second, there are numerous cases in which several issues were part of the same legislative proposal and thus were negotiated under the same context.

Ignoring these potential sources of clustering might severely bias my results. To account for this problem, I introduced two factor variables, one for the issue and one for the legislative proposal, to my regression equation (Steenbergen and Jones 2002: 220). These factor variables simply created dummy variables for every issue and proposal, respectively. The coefficients for the dummy variables will not be reported as they do not contain substantive information for answering the research question at hand.

A final issue is that the nature of the dependent variable is not entirely clear. It is measured on a scale ranging from 0 to 100 and is, technically, categorical as it was measured in integer numbers. The dependent variable could thus be interpreted as ordinal-scaled with 100 categories that are a crude measurement of an underlying continuous variable. This would speak in favor of ordered logistic regression (King 1998: 115ff). At the same time, having 100 ordinal categories comes close to a continuous variable, which would speak in favor of a generalized least squares (GLS) regression. To cope with this ambiguity and as a robustness check, I will thus always report the results for two random-effects models, GLS regression and ordered logistic regression.

6 Results

6.1 Basic model

I start with estimating the random-effects GLS regression that includes my explanatory variables and covariates in different combinations. In this first set of models, I only test the standard formulation of Liberal Intergovernmentalism and do not account for the possible interaction effect. The results are presented in table 2.

	(1)	(2)	(3)	(4)
	GLS	GLS	GLS	GLS
Sector Importance	-2.94**	-2.00**	-1.15	-1.75
-	(1.141)	(0.935)	(1.076)	(1.163)
Environmental Problems	-43.11**		-39.11**	-51.34**
	(21.473)		(17.228)	(21.518)
Ideas – EU	-1.69**			-1.28*
	(0.739)			(0.763)
Ideas – Environment	2.05**			-0.07
	(0.823)			(0.950)
GDP per capita		0.66***	0.65***	0.53***
		(0.127)	(0.139)	(0.174)
Growth		-0.07	-0.34	-1.06
		(0.527)	(0.573)	(0.690)
Ν	994	1,137	1,061	994
Countries	25	27	27	25

Table 2: Basic model - random-effects generalized least squares regression

Remarks: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. GLS = random-effects generalized least squares regression.

Interestingly, none of the four explanatory variables are consistently significant at the 1 percent level. *Environmental Problems* is significant at the 5 percent level across all three models in which it is included. However, it does not have the expected direction. According to these results, moving from the country with the highest environmental quality (equal to 0 due to the normalization procedure) to the one with the lowest (equal to 1) decreases the support for the level of regulation measured on the 0 to 100 scale by as much as approximately 51 (model 4). This is a quite strong and unexpected effect. *Sector importance* has the expected direction, while *Ideas – EU* has the opposite one than expected. However, both variables are not significant at conventional levels.

The only variable that is consistently significant at the 1 percent level is *GDP per capita*. In substantive terms, the observed effect means that a 1,000 Euros increase in *GDP per capita* leads to an increase of 0.53 in the support of a higher level of environmental regulation according to model 4. This, however, is not a strong effect. Besides, *Growth* is not significant.

These results are confirmed by the ordered logistic regression (table 3). The patterns of significance are almost the same, with *GDP per capita* being the only variable that is consistently significant at the 1 percent level and having the expected positive effect. *Environmental Problems* is significant at the 5 percent level and even at the 1 percent level in one model, but retains the unexpected effect direction. Note that the coefficients cannot be interpreted substantively and that I abstain from calculating predicted values due to space restrictions.

	(1)	(2)	(3)	(4)
	OLOG	OLOG	OLOG	OLOG
Sector Importance	-0.20***	-0.16***	-0.10	-0.13*
	(0.07)	(0.06)	(0.07)	(0.07)
Environmental Problems	-2.72**		-3.33***	-3.38**
	(1.31)		(1.28)	(1.34)
Ideas – EU	-0.07			-0.05
	(0.04)			(0.04)
Ideas – Environment	0.11**			0.01
	(0.05)			(0.05)
GDP per capita		0.03***	0.03***	0.03***
		(0.01)	(0.01)	(0.01)
Growth		-0.00	-0.02	-0.06
		(0.03)	(0.03)	(0.04)
Ν	994	1137	1061	994
Countries	25	27	27	25

Table 3: Basic model - random-effects ordered logistic regression

Remarks: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. OLOG = random-effects ordered logistic regression

6.2 Extension

As the results presented in tables 2 and 3 do not lend consistent and significant support to the standard formulation of Liberal Intergovernmentalism proposed by hypothesis H1a, as a next step I introduce the interaction effect of *Sector Importance* and *GDP per capita* proposed by hypothesis H1b to three of the four models of tables 2 and 3. Models 1 to 3 in table 4 show the results for the random-effects GLS regression, models 4 to 6 those of the random-effects ordered logistic regression.

	(1)	(2)	(3)	(4)	(5)	(6)
	GLS	GLS	GLS	OLOG	OLOG	OLOG
Sector Importance	-5.35***	-6.59***	-6.62***	-0.51***	-0.53***	-0.52***
	(1.534)	(1.694)	(1.693)	(0.10)	(0.12)	(0.12)
GDP per capita	0.36**	0.32*	0.19	0.01	0.01	0.00
	(0.158)	(0.168)	(0.193)	(0.01)	(0.01)	(0.01)
Sector*GDP p.c.	0.29***	0.32***	0.32***	0.02***	0.03***	0.02***
-	(0.077)	(0.081)	(0.081)	(0.01)	(0.01)	(0.01)
Environmental Problems	-26.44	-39.06*	-44.01**		-2.57**	-2.83**
	(17.428)	(21.123)	(21.430)		(1.28)	(1.30)
Ideas – EU		-1.19	-1.42*		-0.05	-0.06
		(0.739)	(0.758)		(0.04)	(0.04)
Ideas – Environment		-0.28	-0.14		-0.01	-0.00
		(0.937)	(0.943)		(0.05)	(0.05)
Growth	-0.22		-0.93	0.01		-0.05
	(0.570)		(0.686)	(0.03)		(0.04)
Ν	1,061	994	994	1137	994	994
Countries	27	25	25	27	25	25

Table 4: Extension of the basic model - random-effects GLS and ordinal logistic regression models

Remarks: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. GLS = random-effects generalized least squares regression. OLOG = random-effects ordered logistic regression.

Indeed, the results show strong support for the interaction effect. It is significant at the 1 percent level in all six models and also has the expected direction. To illustrate the relationship, I estimate the marginal effects of *Sector Importance* across different levels of *GDP per capita* using model 3 of table 4 and visualize the results in figure 1.



Figure 1: Marginal effect of Sector Importance across different levels of GDP per capita (using model 3 of table 4)

The figure shows that we can be certain that a marginal increase in the variable *Sector Importance* leads to less support for higher standards when *GDP per capita* is lower than approximately 12,500 Euros and that it leads to higher support when *GDP per capita* is higher than about 30,000 Euros. Given the confidence intervals, one cannot make a

definite statement for the *GDP per capita* values in between, but the general trend speaks in favor of the existence of the interaction effect. However, although the effect sizes are quite considerable for the poorest and richest countries, one should make clear that it is far from explaining all the variation in the dependent variable (note the standard deviation of 41.88 given by table 1).

Nonetheless, it is an interesting result that lends some support to the regulatory formulation of Liberal Intergovernmentalism. At the same time, the extended model confirms the finding that the two variables representing the constructivist argument that ideas matter do not exert a significant effect. Besides, in the extended model they both have a negative effect, which does not make theoretical sense. The effect of *Environmental Problems*, which shows a surprisingly consistent pattern of significance with an unexpected effect direction in the two basic models, is to some extent qualified as the pattern of significance is less robust. Yet, it keeps the negative effect across all models.

6.3 Robustness checks

To further check the robustness of my results, I reestimate the extended GLS regression model as reported in model 3 of table 4 with several modifications and repeat this procedure for model 6 of table 4, the ordered logistic regression. The results are reported in tables 5 and 6.

	(1)	(2)	(3)	(4)	(5)	(6)
	GLS	GLS	GLS	w/o Fish.	w/o Agr.	only Env.
Sector Importance	-3.17**	0.60	-2.49**	-5.98***	-13.39***	-12.58***
	(1.440)	(1.753)	(1.143)	(1.829)	(2.812)	(3.052)
GDP per capita				0.21	-0.08	-0.13
				(0.225)	(0.221)	(0.276)
Sector*GDP				0.28***	0.50***	0.46***
				(0.088)	(0.117)	(0.131)
Environmental Problems	-74.53*	-67.20*	-53.71**	-47.84**	-87.73	-105.57
	(38.123)	(37.821)	(21.895)	(22.183)	(142.465)	(151.740)
Ideas – EU	-1.97**	-2.02**	-1.93***	-1.84**	-0.62	-0.91
	(0.877)	(0.869)	(0.736)	(0.905)	(0.842)	(1.070)
Ideas – Environment	-0.06	0.27	1.50*	0.03	-0.15	0.06
	(1.247)	(1.239)	(0.894)	(1.108)	(1.103)	(1.406)
Growth	0.14	-0.34	-2.27***	-1.55*	-1.32*	-2.36**
	(1.009)	(1.008)	(0.568)	(0.806)	(0.774)	(0.967)
New Member (2004)	-19.08***	-6.25		~ /		× ,
· · · · · · · · · · · · · · · · · · ·	(5.974)	(6.861)				
Sector*New 2004	(213 - 1)	-7.69***				
		(2.077)				
Newest Member		(,	3.76			
			(5.689)			
			(5.007)			
Ν	733	733	994	784	744	534
Countries	25	25	25	25	24	24

Table 5: Robustness checks using random-effects generalized least squares regression

Remarks: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. GLS = random-effects generalized least squares regression (full sample). w/o Fish. = Fisheries sector excluded. w/o Agr. = Agricultural sector excluded. only Env. = Fisheries and Agriculture excluded.

	(1)	(2)	(3) OLOG	(4) w/o Fish	(5) w/o Agr	(6) only Env
	0100	0100	0100	w/011511.	w/origi.	only Env.
Sector Importance	-0.18**	0.09	-0.18**	-0.47***	-1.19***	-1.10***
-	(0.09)	(0.10)	(0.07)	(0.12)	(0.24)	(0.26)
GDP per capita				0.00	-0.01	-0.02
				(0.01)	(0.01)	(0.02)
Sector*GDP				0.02***	0.04***	0.04***
				(0.01)	(0.01)	(0.01)
Environmental Problems	-3.92*	-4.00*	-3.35**	-2.98**	-5.85	-5.48
	(2.19)	(2.20)	(1.34)	(1.31)	(7.24)	(7.64)
Ideas – EU	-0.08	-0.09*	-0.09**	-0.08	-0.02	-0.02
	(0.05)		(0.04)	(0.05)	(0.05)	(0.06)
Ideas – Environment	-0.01	0.01	0.08*	0.01	-0.01	-0.00
	(0.07)	(0.07)	(0.05)	(0.06)	(0.06)	(0.08)
Growth	0.00	-0.03	-0.12***	-0.08*	-0.08*	-0.14**
	(0.06)	(0.06)	(0.03)	(0.04)	(0.04)	(0.06)
New Member (2004)	-0.98***	-0.06				
	(0.33)	(0.39)				
Sector*New 2004		-0.61***				
		(0.14)				
Newest Member			0.21			
			(0.30)			
Ν	733	733	994	784	744	534
Countries	25	25	25	25	24	24

Table 6: Robustness checks using random-effects ordinal logistic regression

Remarks: *** p<0.01, ** p<0.05, * p<0.1. Standard errors in parentheses. OLOG = random-effects ordered logistic regression (full sample). w/o Fish. = Fisheries sector excluded. w/o Agr. = Agricultural sector excluded. only Env. = Fisheries and Agriculture excluded.

In a first step, I test if the differential effect across different levels of development does simply represent a cleavage between new and old member states. New member states are often argued to behave differently than the old members. They are said to defend more bluntly their national economic interest, while the old member states are socialized by the consensual culture that is prevalent in the Council (Beyers 2005: 914). The new member states adapt to this norm only slowly over time. As new member states usually have a lower level of development than the established ones, *GDP per capita* could simply capture the different degrees of socialization.

As the differences in the level of development are particularly high between those member states who entered the Union from 2004 on and those who had been members before (Treib 2010: 123), I create the dummy variable *New Member (2004)* that is coded 1 if a country entered the EU in 2004 or later. In models 1 of tables 5 and 6, I replace the *GDP per capita* variable with the new dummy variable. In order to avoid bias, I limit the dataset to observations from 2004 on.

New Member (2004) is significant at the 1 percent level and has the expected direction of effect in both estimation approaches. Building on this positive finding, I then test if there is also an interaction effect between the dummy variable and *Sector Importance* in both models 2. Indeed, there is a highly significant interaction effect that follows the expected pattern. I visualize this finding in figure 2, which shows the predicted level of support across values of *Sector Importance* for the two groups. What this figure reveals lendss support to the socialization argument: we cannot be sure that there is a positive effect in the old member states, while there is definitely a negative effect for the new ones.



Figure 2: Predicted level of support for stricter European environmental regulation across different levels of Sector Importance for old and new member states (based on model 2 of table 5)

However, if the socialization logic would hold true, the same pattern should also be found for those member states which entered the Union in 1995: Finland, Sweden, and Austria. To test this, I create the dummy variable *Newest Member*. It is coded 1 for those member states who entered the Union last. For example, Finland, Sweden, and Austria are coded 1 from the beginning of the observation period until 2003 and 0 afterwards. From 2004 on, the 12 member states which were then the newest are coded 1. I introduce this variable in models 3 for which I use the whole dataset. The results in tables 5 and 6 show that this variable is not significant at conventional levels and does not have the expected direction. Given this result, I abstain from estimating the interaction effect of this variable and *Sector Importance*. This finding indicates that it is rather the level of development that affects how strongly a member state opposes higher environmental protection than the fact of being new. The results of models 1 and 2 of tables 5 and 6 are thus driven by the strong correlation between entering the EU in 2004 or later and low levels of *GDP per capita*.

Finally, I reestimate the full model with reduced datasets. In model 4 I leave out all issues coming from the fisheries sector, in model 5 those of the agricultural sector, and both in model 6. As previously mentioned, European policy-making is very sector-specific (Treib 2010: 138) and, in fact, agriculture and fisheries are usually treated as being separate from classic environmental policy-making as they fall under the competence of different directorates-general. Besides, they are also said to follow a different logic of policy-making. While the highly subsidized fisheries and agricultural policies mostly focus on questions of economic redistribution, classic environmental policy-making is rather a question of harmonization and regulatory competition (Lindgren and Persson 2008: 35).

However, excluding issues from fisheries, agriculture, or both policy sectors does not change the results in a meaningful way. The interaction effect of *Sector Importance* and *GDP per capita* is still the only term that is consistently significant at the 1 percent level across all three models. Excluding only fisheries lowers the effect size to a considerable degree, however. The growth rate now shows a relatively stable pattern of significance, but not at the 1 percent level and the coefficients further do not have the expected effect direction. Overall, the results for the models with reduced datasets confirm the previous findings and show that policy preferences on issues dealing with environmental protection follow a consistent pattern.

7 Discussion

The variety of models and the different estimation techniques applied have produced robust results that confirm the expectations of the regulatory formulation of Liberal Intergovernmentalism. I find an interaction effect between the importance of the economic sector that is affected by an issue in a particular proposal and the respective country's level of development. More precisely, this means that countries with lower levels of development show stronger opposition towards environmental protection when the affected sector is important, but stronger support when they have high levels of development. Although this interaction effect appears to be robust and the other theories on member state preferences, Neofunctionalism and Constructivism, can be rejected, my results should be treated with caution for several reasons.

First of all, when one compares the size of the effect with the actual variation of the dependent variable, it becomes evident that Liberal Intergovernmentalism can only explain part of the story. Such a finding is, of course, normality in probabilistic quantitative research, but is of particular importance in this case because none of the other variables included in the model are significant. Thus, this might mean that my models suffer from omitted variable bias. For example, the R^2 for model 3 of table 4, the

full model including the interaction effect that is estimated using GLS regression, shows that my model only explains about 34 percent of the overall variance in the dependent variable. This is not necessarily an unusual number for nowadays' quantitative research, but it still indicates that there is an important part of the story missing. Besides, one should be suspicious about the fact that the lower level terms of the interaction did not both reach the highest levels of significance in the basic model (tables 2 and 3), but only *GDP per capita*. Yet, this is not a reason for neglecting the presence of the interaction effect.

Furthermore, it is often the case that coefficients have a direction that is opposite than the one theoretically expected. This does not disqualify my results as these coefficients usually are not significant at high levels, but there is still some reason to be worried. In particular, the variable *Environmental Problems* is significant at the 5 percent level in several models, but indicates that countries with higher environmental problems are less in favor of environmental regulation on the European level and thus turns Neofunctionalism's argument upside-down.

There are two potential reasons for that. First, this might lend further support to the regulatory formulation of Liberal Intergovernmentalism. Countries that have less environmental problems have these because they have higher standards and are willing to defend them by uploading them to the European level, while countries with bigger problems have lower standards and want to avoid downloading higher standards from the European level. This potential relationship is actually quite intriguing, but is subject to further empirical investigation that goes beyond the scope of this analysis.

The second potential reason for the unexpected direction, however, would be highly problematic. It could simply be the case that my operationalization of environmental problems is invalid. As I was unable to find any measurement of environmental problems in the literature that was as fine-grained as I needed it to be, I had to develop environmental sector-specific indicators myself and thereby had to rely heavily on the criterion of data availability. As a consequence, I often only could use approximations that were not entirely satisfying.

Another aspect that might impede the generalizability of my results is that the validity of the actual preference measurements contained in the DEUII dataset might be limited. Although several scholars found the measurements to be quite accurate (Bailer 2011, Bueno de Mesquita 2004), it is difficult to test this empirically given the narrow focus on a number of contested issues. Besides, the DEUII dataset does not always report preferences for all member states because sometimes country representatives simply did not make a statement. As my dataset is not organized as a panel, this did not create missing values in a statistical sense, but the possible information that the act of not revealing preferences contains is not captured by my analysis. In fact, the non-revelation of preferences can have different reasons, for example real indifference (Arregui and Thomson 2009) or strategic concerns (König et al. 2005). These instances, however, would also be part of a complete explanation of the formation of preferences.

Finally, the DEUII dataset may be biased because the revealed preferences could not be the actual preferences, but the result of political trades between member state representatives such as logrolling. Yet, the risk seems to be low for my analysis. Logrolling should mostly occur across contested issues, of which most are covered by the DEUII dataset. Furthermore, logrolling across proposals is unlikely as there are relatively long time spans between the negotiations of the different proposals. Besides, logrolling across proposals from different policy sectors that were negotiated at the same time is uncommon in European politics (Moravcsik 1993: 488). Thus, the only instance where there is real potential for logrolling is across issues within a proposal, which limits the extent of the problem to a considerable degree.

Despite all these potential caveats and problems, my analysis makes an important contribution to the literature on everyday policy-making in the EU. This literature itself is a fairly recent one that so far has focused on the detection of general patterns of political interaction and the role of preferences in it, but at the same time has emphasized the sector-specificity of European politics (Treib 2010: 138). As a consequence, several researchers undertook case studies for particular legislative proposals (Lindgren and Persson 2008, Treib 2010, Spendzharova 2012). As far as I am aware of, this is the first large-scale quantitative study of the determinants of member state preferences that is policy sector-specific and focuses on everyday policy-making in the EU.

8 Conclusion

This analysis has contributed to the emerging literature on everyday policy-making in the European Union by providing insights into the determinants of member state preferences on environmental issues that are negotiated in the Council of the European Union. From the DEUII dataset that contains measurements of member state preferences on contested parts of legislative proposals brought forward between 1996 and 2008, I isolated those 76 issues that deal with environmental regulation on the European level and used these to test my theoretical framework. The latter was based on the adaptation of two theories of European integration from which clear expectations about the determinants of member state preferences can be derived, Liberal Intergovernmentalism and Neofunctionalism, as well as of the broader constructivist argument that ideas matter, to everyday environmental policy-making in the Council.

Using random-effects generalized least squares regression as well as random-effects ordered logistic regression, I found support for the argument of the regulatory formulation of Liberal Intergovernmentalism (Moravcsik 1993, 1998). My analysis revealed an interaction effect of the relative importance of the sector affected by a proposal for a new European environmental regulation for the national economy and a member state's level of development. In substantive terms, this means that countries with lower levels of development show stronger opposition towards environmental protection when the affected sector is important, but stronger support when they have high levels of development, ceteris paribus. The expectations of Neofunctionalism and the Constructivist argument that ideas matter were not confirmed. This pattern can be explained by Liberal Intergovernmentalism's theoretical argument that the rich countries have higher levels of environmental protection and are willing to defend the national regulatory balance by uploading their standards to the European level. The poorer countries, on the other hand, are "laggards" with lower standards. They therefore have an incentive to avoid the adaptation costs that stem from downloading new European standards that are higher than their national ones. The more important the affected sectors are, the higher will be a country's efforts to defend this national interest.

These results are important for several reasons. First of all, they go beyond the dominant approach that focuses on who wins and who loses in political competition in the European Union and aims at identifying general patterns of political contestation. Instead of treating member state preferences as secondary and independent variables, I used them as dependent variable. Knowledge about the determinants of member state preferences in negotiations in the Council is not only important for scholars in order to fully understand how the political process in the EU works, but also for policy-makers themselves as it allows them to develop negotiation strategies that can better exploit the pattern of policy preferences held in the Council.

Besides, I followed the argument brought forward by several scholars that policy-making in the EU strongly differs across policy sectors and that sector-specific analyses were therefore needed (Thomson et al. 2012: 617). By providing the to my knowledge first large-scale quantitative study of a whole sector, I went beyond the approaches of other researchers who followed this recommendation by undertaking case studies on the development of particular legislative proposals. For future research, it would be promising to apply my approach to other sectors than environmental policy-making. Of particular interest would be if my results hold true in sectors with other characteristics, for example ones that deal exclusively with economic redistribution or liberalization instead of harmonization of regulations. Furthermore, more certainty about my findings could be created by using different operationalizations of the independent variables, in particular other indicators for environmental problems. Finally, it would be promising to use alternative preference measurements as dependent variable in order to test if the potential problems that might stem from the DEUII approach biased my results.

Bibliography

- Arceneaux, Kevin, and David W. Nickerson. "Modeling Certainty with Clustered Data: A Comparison of Methods." *Political Analysis* 17, no. 2 (2009): 177-90.
- Arregui, Javier, and Robert Thomson. "States' Bargaining Success in the European Union." *Journal of European Public Policy* 16 (2009): 655–76.
- Aspinwall, Mark. Preferring Europe: Ideology and National Preferences on European Integration." *European Union Politics* 3, no. 1 (2002): 81-111.
- -------."Government Preferences on European Integration: An Empirical Test of Five Theories." *British Journal of Political Science* 37, no. 1 (2007): 89-114.
- Bailer, Stefanie. "Structural, Domestic, and Strategic Interests in the European Union: Negotiation Positions in the Council of Ministers." *Negotiation Journal* 27, no. 4 (2011): 447–75.
- Benoit, Kenneth, and Michael Laver. *Party Policy in Modern Democracies*. London: Routledge, 2006.
- ------. "Estimating Party Policy Positions: Comparing Expert Surveys and Hand-Coded Content Analysis." *Electoral Studies* 26, no. 1 (2007): 90-107.
- Benz, Arthur, and Burkard Eberlein. "The Europeanization of Regional Policies: Patterns of Multi-Level Governance." *Journal of European Public Policy* 6, no. 2 (1999): 329-48.
- Börzel, Tanja A. "Member State Responses to Europeanization." *JCMS: Journal of Common Market Studies* 40, no. 2 (2002): 193-214.
- Budge, Ian, and Michael Laver. "Coalition Theory, Government Policy and Party Policy." In *Party Policy and Government Coalitions*. New York: St. Martin's Press, 1992.
- Bueno de Mesquita, Bruce. "Decision-Making Models, Rigor and New Puzzles." *European Union Politics* 5 (2004): 125–38.
- Bunea, Adriana. "Issues, Preferences and Ties: Determinants of Interest Groups' Preference Attainment in the EU Environmental Policy." *Journal of European Public Policy* 20, no. 4 (2012): 552-70.
- Callanan, Mark. "EU Decision-Making: Reinforcing Interest Group Relationships with National Governments?". *Journal of European Public Policy* 18, no. 1 (2011): 17-34.
- Copsey, Nathaniel, and Tim Haughton. "The Choices for Europe: National Preferences in New and Old Member States." *Journal of Common Market Studies* 47, no. 2 (2009): 263-86.
- Diez, Thomas, and Antje Wiener. *European Integration Theory*. Oxford: Oxford University Press, 2004.
- Dinas, Elias, and Kostas Gemenis. "Measuring Parties' Ideological Positions with Manifesto Data: A Critical Evaluation of the Competing Methods." *Party Politics* 16, no. 4 (2010): 427-50.
- Döring, Holger, and Philip Manow. "Parliament and Government Composition Database (ParlGov): An Infrastructure for Empirical Information on Parties, Elections and Governments in Modern Democracies.", 2012.

- Finke, Daniel. "Domestic Politics and European Treaty Reform: Understanding the Dynamics of Governmental Position-Taking." *European Union Politics* 10, no. 4 (2009): 482-506.
- Forster, Anthony. "Britain and the Negotiation of the Maastricht Treaty: A Critique of Liberal Intergovernmentalism." *Journal of Common Market Studies* 36, no. 3 (1998): 347-68.
- Franchino, Fabio. "Challenges to Liberal Intergovernmentalism." *European Union Politics* 14, no. 2 (2013): 324-37.
- Golub, Jonathan. "How the European Union Does Not Work: National Bargaining Success in the Council of Ministers." *Journal of European Public Policy* 19, no. 9 (2012): 1294-315.
- Haas, Ernst B. *The Uniting of Europe: Political, Social and Economic Forces* 1950– 1957. London: Steven & Sons, 1958.
 - ——. "International Integration: The European and the Universal Process." International Organization 15 (1961): 366-92.
- Hagemann, Sara. "Applying Ideal Point Estimation Methods to the Council of Ministers." *European Union Politics* 8, no. 2 (2007): 279-96.
- Hagemann, Sara, and Bjorn Hoyland. "Parties in the Council?". *Journal of European Public Policy* 15, no. 8 (2008): 1205-21.
- Hironaka, Ann. "The Globalization of Environmental Protection: The Case of Environmental Impact Assessment." *International Journal of Comparative Sociology* 43, no. 1 (2002): 65–78.
- Hix, Simon. "Dimensions and Alignments in European Union Politics: Cognitive Constraints and Partisan Responses." *European Journal of Political Research* 35, no. 1 (1999): 69-106.
- Hix, Simon, and Abdul Noury. "After Enlargement: Voting Patterns in the Sixth European Parliament." *Legislative Studies Quarterly* 34, no. 2 (2009): 159-74.
- Hix, Simon, Abdul Noury, and Gérard Roland. "Voting Patterns and Alliance Formation in the European Parliament." *Philosophical Transactions of the Royal Society B: Biological Sciences* 364, no. 1518 (2009): 821-31.
- Holzinger, Katharina, and Christoph Knill. "Competition and Cooperation in Environmental Policy. Individual and Interaction Effects." *Journal of Public Policy* 24, no. 1 (2004): 25-47.
- Hooghe, Liesbet *The European Commission and the Integration of Europe: Images of Governance*. Cambridge:: Cambridge University Press, 2001.
- Hooghe, Liesbeth, and Gary Marks. *Multi-Level Governance and European Integration*. Oxford: Oxford University Press, 2001.
- ———. "A Postfunctionalist Theory of European Integration: From Permissive Consensus to Constraining Dissensus." *British Journal of Political Science* 39, no. 1 (2009): 1–23.
- Hooghe, Liesbeth, Gary Marks, and Carole J. Wilson. "Does Left/Right Structure Party Positions on European Integration?". *Comparative Political Studies* 35, no. 8 (2002): 965–89.
- Hosli, Madeleine O., and Christine Arnold. "The Importance of Actor Cleavages in Negotiating the European Constitution." *International Studies Quarterly* 54, no. 3 (2010): 615-32.

- Hug, Simon, and Thomas König. "In View of Ratification: Governmental Preferences and Domestic Constraints at the Amsterdam Intergovernmental Conference." *International Organization* 56, no. 02 (2002): 447-76.
- Jones, Erik, and Amy Verdun. "Introduction: Political Economy and European Integration." *Journal of European Public Policy* 10, no. 1 (2003): 81-83.
- Kim, HeeMin, and Richard C. Fording. "Extending Party Estimators to Governments and Electors." In *Mapping Policy Preferences: Estimates for Parties, Electors and Governments 1945–1998*, edited by Ian Budge, Hans-Dieter Klingemann, Andrea Volkens, Judith Bara and Eric Tanenbaum, 157–78. Oxford: Oxford University Press, 2001.
- King, Gary Unifying Political Methodology: The Likelihood Theory of Statistical Inference. Ann Arbor: University of Michigan Press, 1998.
- Klingemann, Hans-Dieter, Andrea Volkens, Judith Bara, Ian Budge, and Michael McDonald. *Mapping Policy Preferences Ii. Estimates for Parties, Electors, and Governments in Eastern Europe, European Union and OECD 1990-2003.* Oxford: Oxford University Press, 2006.
- Klüver, Heike. "The Contextual Nature of Lobbying: Explaining Lobbying Success in the European Union." *European Union Politics* 12, no. 4 (2011): 483-506.
- ———. "Lobbying as a Collective Enterprise: Winners and Losers of Policy Formulation in the European Union." *Journal of European Public Policy* 20, no. 1 (2012): 59-76.
- Knill, Christoph, and Jale Tosun. "Hierarchy, Networks, or Markets: How Does the EU Shape Environmental Policy Adoptions within and Beyond Its Borders?". *Journal of European Public Policy* 16, no. 6 (2009): 873-94.
- König, Thomas, Daniel Finke, and Stephanie Daimer. "Ignoring the Non-Ignorables? Missingness and Missing Positions." *European Union Politics* 6 (2005): 269–90.
- König, Thomas, Björn Lindberg, Sandra Lechner, and Winfried Pohlmeier. "Bicameral Conflict Resolution in the European Union: An Empirical Analysis of Conciliation Committee Bargains." *British Journal of Political Science* 37, no. 2 (2007): 281-312.
- Lewis, Jeffrey. "Is the 'Hard Bargaining' Image of the Council Misleading? The Committee of Permanent Representatives and the Local Elections Directive." *Journal of Common Market Studies* 36, no. 4 (1998): 479-504.
- Liefferink, Duncan, and Mikael Skou Andersen. "Strategies of the "Green" Member States in EU Environmental Policy-Making." *Journal of European Public Policy* 5, no. 2 (1998): 254–70.
- Lindgren, Karl-Oskar, and Thomas Persson. "The Structure of Conflict over EU Chemicals Policy." *European Union Politics* 9, no. 1 (2008): 31-58.
- Linhart, Eric, and Susumu Shikano. "Ideological Signals of German Parties in a Multi-Dimensional Space: An Estimation of Party Preferences Using the CMP Data." *German Politics* 18, no. 3 (2009): 301-22.
- Lowe, Will, Kenneth Benoit, Slava Mikhaylov, and Michael Laver. "Scaling Policy Preferences from Coded Political Texts." *Legislative Studies Quarterly* 36, no. 1 (2011): 123-55.
- Marks, Gary, and Marco Steenbergen. "Understanding Political Contestation in the European Union." *Comparative Political Studies* 35, no. 8 (2002): 879-92.

- McElroy, Gail. "Legislative Politics as Normal?: Voting Behaviour and Beyond in the European Parliament." *European Union Politics* 8, no. 3 (2007): 433-48.
- Miklin, Eric. "Government Positions on the EU Services Directive in the Council: National Interests or Individual Ideological Preferences?". *West European Politics* 32, no. 5 (2009): 943-62.
- Moravcsik, Andrew. "Preferences and Power in the European Community: A Liberal Intergovernmentalist Approach." *JCMS: Journal of Common Market Studies* 31, no. 4 (1993): 473-524.
 - *—.The Choice for Europe: Social Purpose and State Power from Messina to Maastricht.* Ithaca: Cornell University Press, 1998.
- Pierson, Paul. "The Path to European Integration: A Historical Institutionalist Analysis." *Comparative Political Studies* 29, no. 2 (1996): 123-63.
- Pollack, Mark A. "Creeping Competence: The Expanding Agenda of the European Community." *Journal of Public Policy* 14, no. 2 (1994): 95-145.
- Proksch, Sven-Oliver, and Jonathan B. Slapin. "Position Taking in European Parliament Speeches." *British Journal of Political Science* 40, no. 3 (2010): 587-611.
- Rovny, Jan. "Who Emphasizes and Who Blurs? Party Strategies in Multidimensional Competition." *European Union Politics* 13, no. 2 (2012): 269-92.
- Sbragia, Alberta M. "Environmental Policy: Economic Constraints and External Pressures." In *Policy-Making in the European Union*, edited by Helen Wallace and William Wallace. Oxford: Oxford University Press, 2000.
- Schimmelfennig, Frank, and Daniel C. Thomas. "Normative Institutionalism and EU Foreign Policy in Comparative Perspective." *International Politics* 46, no. 4 (2009): 491-504.
- Schneider, Gerald, Daniel Finke, and Stefanie Bailer. "Bargaining Power in the European Union: An Evaluation of Competing Game-Theoretic Models." *Political Studies* 58, no. 1 (2010): 85-103.
- Spendzharova, Aneta. "Is More 'Brussels' the Solution? New European Union Member States' Preferences About the European Financial Architecture." *Journal of Common Market Studies* 50, no. 2 (2012): 315-34.
- Steenbergen, Marco R., and Bradford S. Jones. "Modeling Multilevel Data Structures." *American Journal of Political Science* 46, no. 1 (2002): 218-37.
- Sweet, Alec Stone, and Wayne Sandholtz. "European Integration and Supranational Governance." *Journal of European Public Policy* 4, no. 3 (1997): 297-317.
- Thomson, Robert. *Resolving Controversy in the European Union*. Cambridge: Cambridge University Press, 2011.
- Thomson, Robert, Frans Stokman, Christopher Achen, and Thomas König. *The European Union Decides*. Cambridge: Cambridge University Press, 2006.
- Thomson, Robert, Javier Arregui, Dirk Leuffen, Rory Costello, James Cross, Robin Hertz, and Thomas Jensen. "A New Dataset on Decision-Making in the European Union before and after the 2004 and 2007 Enlargements (DEUII)." *Journal of European Public Policy* 19, no. 4 (2012): 604-22.
- Treib, Oliver. "Party Politics, National Interests and Government—Opposition Dynamics: Cleavage Structures in the Convention Negotiations on EU Social Policy." *European Union Politics* 11, no. 1 (2010): 119-42.

- Tsebelis, George, and Geoffrey Garrett. "Legislative Politics in the European Union." *European Union Politics* 1, no. 1 (2000): 9-36.
- Veen, Tim. "Positions and Salience in European Union Politics: Estimation and Validation of a New Dataset." *European Union Politics* 12, no. 2 (2011a): 267-88.

—. "The Dimensionality and Nature of Conflict in European Union Politics: On the Characteristics of Intergovernmental Decision-Making." *European Union Politics* 12, no. 1 (2011b): 65-86.

- Volkens, Andrea, Onawa Lacewell, Pola Lehmann, Sven Regel, Henrike Schultze, and Annika Werner. *The Manifesto Data Collection. Manifesto Project* (*MRG/CMP/MARPOR*). Berlin: Wissenschaftszentrum Berlin für Sozialforschung (WZB), 2012.
- Wansbeek, Tom, and Arie Kapteyn. "Estimation of the Error-Components Model with Incomplete Panels." *Journal of Econometrics* 41 (1989): 341-61.
- Warwick, Paul V. "Toward a Common Dimensionality in West European Policy Spaces." *Party Politics* 8, no. 1 (2002): 101-22.

Appendix

Proposal	Issue number(s)	Economic sector affected
COD/2000/067	10, 11	Shipping
COD/1999/083	55	Waste management
COD/1999/127	56, 57	Electric equipment
CNS/1996/160	101	Fisheries
CNS/1998/092	104, 105, 106, 107, 108, 109	Agriculture
CNS/1999/050	133	Fisheries
CNS/1999/072	135, 136, 137	Agriculture
CNS/1999/092	139, 140	Forestry
CNS/1999/138	143, 144	Fisheries
CNS/1999/255	164, 165	Fisheries
COD/2004/218	181, 182, 183	Agriculture
COD/2005/183	198	Agriculture, Energy
COD/2005/183	199	Agriculture, Energy
COD/2005/281	213, 214, 215, 216	Waste management
CNS/2003/318	217, 218, 219, 220	Fisheries
CNS/2003/327	221, 222, 223, 224	Fisheries
CNS/2004/161	226	Agriculture
CNS/2005/099	236, 237	Agriculture
COD/2006/132	241, 242	Agriculture
CNS/2008/105	252	Agriculture
COD/2005/283	262, 263, 264	Vehicle production
COD/2006/129	265, 266, 267, 268	Chemical industry, metal industry

Table A1: Major economic sectors affected by regulation, by proposal and issue

COD/2006/304	271, 272, 273, 274	Aviation
COD/2007/297	280, 281, 282, 283	Vehicle production
2006/0206/COD	310, 311, 312, 313	Chemical industry
CNS/2007/0114	314, 315, 316,	Fisheries
CNS/2007/0223	317, 318, 319, 320	Fisheries
CNS/2007/0224	321, 322	Fisheries
CNS/2008/0093	323	Fisheries
2005/0211/COD	330, 331	Shipping, fisheries, oil production

Proposal	Issue number(s)	Topic	Indicator
COD/2000/067	10, 11	Shipping	Gross weight of goods handled in all ports, p.c.*
COD/1999/083	55	Waste	Amount of municipal waste, p.c.
COD/1999/127	56, 57	Energy Efficiency	CO ₂ emissions, p.c.
CNS/1996/160	101	Fisheries	Shipping kilowatt needed per fish caught**
CNS/1998/092	104, 105, 106, 107, 108, 109	Agriculture	Livestock density index
CNS/1999/050	133	Fisheries	Shipping kilowatt needed per fish caught**
CNS/1999/072	135, 136, 137	Agriculture	Livestock density index
CNS/1999/092	139, 140	Forestry	Forest trees damaged by defoliation
CNS/1999/138	143, 144	Fisheries	Shipping kilowatt needed per fish caught**
CNS/1999/255	164, 165	Fisheries	Shipping kilowatt needed per fish caught**
COD/2004/218	181, 182, 183	Agriculture	Total sales of pesticides, per ha of agricultural area
COD/2005/183	198	Air quality	NO _x emissions, p.c.
COD/2005/183	199	Air quality	Urban population exposure to air pollution by PM
COD/2005/281	213, 214, 215, 216	Waste	Amount of municipal waste, p.c.
CNS/2003/318	217, 218, 219, 220	Fisheries	Shipping kilowatt needed per fish caught**
CNS/2003/327	221, 222, 223, 224	Fisheries	Shipping kilowatt needed per fish caught**

Table A2: Sector-specific indicators for environmental problems, by proposal and issue

CNS/2004/161	226	Agriculture	Total sales of pesticides, per ha of agricultural area
CNS/2005/099	236, 237	Agriculture	Livestock density index
COD/2006/132	241, 242	Agriculture	Total sales of pesticides, per ha of agricultural area
CNS/2008/105	252	Agriculture	Total sales of pesticides, per ha of agricultural area
COD/2005/283	262, 263, 264	Vehicles	CO ₂ emissions, p.c.
COD/2006/129	265, 266, 267, 268	Water quality	Population share not connected to water treatment systems
COD/2006/304	271, 272, 273, 274	Emissions from aviation	CO ₂ emissions, p.c.
COD/2007/297	280, 281, 282, 283	Emissions from vehicles	CO ₂ emissions, p.c.
2006/0206/COD	310, 311, 312, 313	Hazardous substances	Metallic waste, p.c.
CNS/2007/0114	314, 315, 316,	Fisheries	Shipping kilowatt needed per fish caught**
CNS/2007/0223	317, 318, 319, 320	Fisheries	Shipping kilowatt needed per fish caught**
CNS/2007/0224	321, 322	Fisheries	Shipping kilowatt needed per fish caught**
CNS/2008/0093	323	Fisheries	Shipping kilowatt needed per fish caught**
2005/0211/COD	330, 331	Water quality	Population share not connected to water treatment systems

^{*}This indicator follows the reasoning that the more goods are handled, the higher shipping traffic and therefore the exposure to environmental risk stemming from shipping. ** This indicator follows the reasoning that the more kilowatts needed per fish, the more difficult it is to reach nearby fishing grounds. This is the best approximation for diminishing fishing grounds available.