

Interest group influence on EU policy-making: A quantitative analysis across issues

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Abstract: This paper presents a large-scale empirical analysis of interest group influence on EU policy-making across a wide range of issues. The explanation of policy outcomes as well as the democratic legitimacy of the EU crucially depends on how much influence interest groups have and how influence is distributed among them. However, only few studies have addressed the question of influence and most are limited to case studies focusing only on one single issue. Recent literature however suggests that interest group influence varies considerably across issues. It is assumed that influence is not a mere function of interest group characteristics, but strongly shaped by the issue context. The lack of large-N studies controlling for issue variables is mainly due to methodological difficulties in measuring influence. Hence, this paper employs a new approach: Drawing on a quantitative text analysis performed with *Wordfish*, policy preferences of interest groups will be compared with the policy proposal in order to identify the winners and the losers of the decision-making process. While controlling for interest group characteristics, the effect of issue-related variables on interest group influence will be tested across 15 policy issues.

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1. Introduction¹

How much influence do interest groups have on policy-making and how is influence distributed among them? These questions should be of central concern to scholars of European politics since the explanation of policy outcomes as well as the democratic legitimacy of the European Union crucially depend on interest group influence and the distribution of influence among groups. Whereas scholars of EU policy-making have mostly concentrated on explaining policy outcomes with reference to the formal institutions, the role of interest group has long been ignored (for recent exceptions, see Dür/de Bièvre 2007a, Mahoney 2008, Michalowitz 2007). However, if we explain policy outcomes solely drawing on preferences and bargaining power of the three major European institutions, we disregard how the preferences of these institutions have actually come about. Moravcsik (1993, 1998) for instance argues that member states in the Council function as a transmission belt for interest group preferences dominant on the domestic level. Stone Sweet and Sandholtz (1997) furthermore argue that interest groups also spill over to the European level and have an important direct impact on policy-making at the European level. Accordingly, the number of interest groups lobbying the European institutions has increased significantly over the past decades (Greenwood 2007: 12). According to the register of the European Parliament, 1954 interest groups are currently active on the European level (Berkhout/Lowery 2008: 497). Thus, ignoring the increasing pressure of interest groups in empirical research of EU policy-making constitutes an oversimplification of the decision-making process in the European Union.

In recent years, scholars have therefore started to study interest group influence in the European Union (Bernhagen/Bräuninger 2005, Dür/de Bièvre 2007a, Mahoney 2008, Michalowitz 2007, Schneider/Baltz 2005, Woll 2007). Two main groups of explanatory variables have been identified: interest group properties (e.g. interest group type, organizational form) and issue characteristics (e.g. salience, complexity of policy proposal, location of the status quo and size of lobbying perspective) (Dür/de Bièvre 2007b).²

The majority of interest group studies draws on interest group properties as the main explanatory variables for variation in interest group influence (e.g. Dür/de Bièvre 2007a, Schneider/Baltz 2003). Among interest group properties, interest group type has been identified as a major explanatory variable for interest group influence. Concerning group type, one can basically distinguish two dimensions: Nature of the interest (cause vs. sectional groups) and organizational form (companies,

¹ I thank Berthold Rittberger, Thomas Gschwend, Christine Mahoney and Andrea Haupt for valuable comments and suggestions.

² A third factor shaping interest group influence are institutional characteristics of the political system (Mahoney 2004, 2007). Whereas this variable could account for variation in interest group influence across different political systems, it cannot explain variation in interest group influence in the European Union since it is held constant.

European Associations or National Associations). Drawing on Mancur Olson's (1965) seminal work on the logic of collective action, the most prominent hypothesis is that interest group influence varies according to the nature of the interest (e.g. Dür/de Bièvre 2007a, Persson 2007, Schneider/Baltz 2003). Diffuse interests should find it more difficult to influence policy outcomes than concentrated interests since they are less well endowed with resources. However, this hypothesis has only recently been tested mainly drawing on cases studies focusing on one or just a few policy sectors or issues. These studies are characterized by contradictory findings: Whereas some studies confirm the hypothesis that diffuse interests are less influential than concentrated interests (e.g. Dür/de Bièvre 2007a, Schneider/Baltz 2003), other authors contend that diffuse interests were in fact capable of exerting a considerable amount of influence on policy-making (e.g. Pollack 1997, Warleigh 2000). Another hypothesis put forward by Pieter Bouwen (2002, 2004) is that the organizational form plays a crucial role for being able to influence the decision-making process. According to Bouwen (2002, 2004), companies are more powerful than European and National Associations in influencing the policy-making process since they are better able to provide access goods to decision-makers. However, Bouwen's analysis is limited to business interests in the financial sector and thus his hypotheses need to be tested for other policy sectors.

In recent years, scholars have furthermore pointed out the importance of issue related factors for interest group influence (e.g. Baumgartner et al. forthcoming, Mahoney 2007, 2008). According to the characteristics of the policy issue at hand, interest groups influence is assumed to vary across issues. However, since most of the few studies on interest group influence in the EU actually concentrate on one or just a few policy issues, the effect of issue related variables cannot be empirically tested since the issue context is held constant (for an exception, see Mahoney 2008).

Thus, what is needed is a large-N cross-issue study in order to empirically test the effect of actor type and issue-related factors on interest group influence. The lack of large-N cross-issue studies controlling for issue related variables is mainly due to methodological difficulties in measuring influence (see also Dür/de Bièvre 2007a: 2). Hence, this paper suggests a new approach: Drawing on quantitative text analysis performed with *Wordfish* (Proksch/Slapin 2008, Slapin/Proksch 2008), policy preferences of interest groups will be compared with the policy output in order to identify the winners and the losers of the decision-making process.³ While controlling for interest group type, the effect of issue-related variables on interest group influence will be tested across 15 policy issues. The present version of the paper presents preliminary results stemming from a larger research project. After completion of the entire data collection, the analysis will be extended to 59 issues and approximately 3500 observations.

³ As outlined in more detail in the research design section, policy output refers to the final policy proposal since this paper focuses specifically on interest group influence during the policy formulation phase.

The paper proceeds as follows: The next section sets out the theoretical framework focusing on interest group type and issue characteristics. The third section illustrates the research design followed by the empirical analysis in part four.

2. Theoretical Framework

2.1. Interest group type

Interest group research has put a lot of emphasis on the effect of group type on influence on policy-making process. One can basically distinguish two streams of research: One referring to the nature of the interest and the other one referring to the organizational form of the interest group.

Nature of the interest

A prominent hypothesis in interest group research is that interest group influence varies according to the nature of the interest. However, researchers employ varying definitions to capture the difference in the nature of the interest and hence formulate hypotheses such as public interest groups are more influential than private interest groups or specific interest groups are more influential than diffuse interest groups. Before turning to discussing hypotheses concerning the effect of the nature of the interest on interest group influence, it is therefore important to define the meaning of the term “interest group” and to give precise definitions of the varying group types related to the nature of the interest. This study uses the conventional term “interest group” but employs a very broad definition in order to cover a large range of actors. According to Beyers et al. (2008: 1106f) three features must be given: organization, political interests, and informality. *Organization* relates to the nature of the group and excludes unorganized broad movements and waves of public opinion. *Political interest* refers to attempts of these organizations to influence policy outcomes. *Informality* relates to the fact that interest groups do normally not seek public office or compete in elections but pursue their goals through frequent informal interactions with politicians and bureaucrats.

The first distinction to make is between membership organizations and companies. Companies are corporate actors whereas membership organizations have natural or legal persons as members. Concerning membership organizations, it is important to furthermore distinguish according to the nature of the interest. Stewart (1958: 25) differentiated between “sectional groups” and “cause groups”. Sectional groups represent a section of society such as farmers or chemical corporations. Their task is to look after the specific interest of this particular section of society and their membership is usually limited to that section. The common interest of their members is specific and usually of primary material nature. Cause groups by contrast represent some belief or principle such as environmental protection, health or consumer protection. The membership of cause groups is not

restricted; anyone in favor of the principle can become a member of this group. The common interest of cause group members is usually diffuse and of secondary nature.

A prominent hypothesis in interest group research is that cause groups are less influential than sectional groups. It is hypothesized that cause groups are less influential since they cannot provide resources to decision-makers (Dür/de Bièvre 2007a: 81).⁴ Resources are defined as money, information as well as electoral support. With little to exchange, cause groups are not able to shift the policy position of decision-makers towards their ideal point. The inability to provide resources lies in the nature of the interest they represent: Since cause groups defend some diffuse ideal or principle, everyone can join these groups and thus the membership is very heterogenous. Due to the fact that the interest is of secondary nature to members and members face only diffuse costs and benefits associated with this interest, they will not provide the same financial resources and electoral support as members of sectional groups whose primary material interests are affected. Since cause groups defend a diffuse ideal or principle and since they lack financial resources they can only provide decision-makers with much less detailed information than sectional groups. Thus, even though cause groups have overcome the problem of getting organized, they constantly suffer from collective action problems, leading to an undersupply of resources (Dür/de Bièvre 2007a: 82). Sectional groups by contrast represent well-defined homogenous constituencies with specific interests. Since these interests are of primary material concern to their members they are willing to supply the interest group with the necessary financial and electoral support. Thus, the following hypothesis can be formulated:

Hypothesis 1: Sectional groups are more influential than cause groups.

Organizational form

Another stream of research is concerned with the effect of organizational form on interest group influence. Pieter Bouwen (2002, 2004) presented a well-elaborated theoretical framework explaining influence of business associations in the European Union.⁵ Drawing on resource dependency theory, Bouwen considers lobbying as an exchange process whereby goods are exchanged between public decision-makers and private interest groups. They are interdependent because they are not internally self-sufficient but require resources from each other. The resource required by interest groups is influence on the policy-making process. In return for influence, the European institutions demand

⁴ Dür and de Bièvre limited their own analysis to business associations and companies versus cause groups. Since the empirical results however do not differ no matter whether business interests or sectional groups in general are taken into account, this paper concentrates on sectional groups.

⁵ Bouwen uses access to decision-makers as a proxy for business group influence. Since the empirical results do not differ no matter whether only business groups or all types of interest groups are taken into account, the theoretical framework will be extended to interest groups in general.

certain access goods which are crucial for their functioning. Bouwen (2002, 2004) distinguishes three types of access goods: Expert knowledge, information about the European encompassing interest and information about the domestic encompassing interest. Expert knowledge refers to expertise and technical know-how. The European encompassing interest refers to the aggregated needs and preferences of a specific subset of society at the European level whereas the domestic encompassing interest refers to the aggregated needs and preferences of a specific subset of society at the national level. The more actors are involved in the formulation of the interest, the more encompassing is the interest.

Interest groups can only influence the policy-making process if they are able to provide the access goods demanded by the European institutions.⁶ According to Bouwen (2002, 2004), the Commission most importantly needs expert knowledge, then information about the European encompassing interest, and then information about the domestic encompassing interest. The European Commission plays a crucial role in European policy-making since it has the sole right of initiative in the first pillar. Only the Commission is able to initiate legislation and is thus responsible for the elaboration of policy proposals. Drafting legislative proposals is a highly complex and lengthy process in which the Commission needs a considerable amount of expertise. Since the Commission is notoriously understaffed, it is highly dependent on external expert knowledge to draft policy proposals. Thus, the most important access good which the Commission demands from interest groups is expert knowledge. Only interest groups who can supply the necessary expert knowledge are able to exert influence on policy formulation. In order to draft successful proposals that are able to win a majority in the further decision-making process, the European Commission furthermore needs information about common European interests. Only if the Commission has an idea about what constitutes the common denominator at the European level, it is able to draft a policy proposal that will be accepted by Member States in the course of the policy cycle. Thus, the second access good which the Commission demands is information about the European encompassing interest. According to Bouwen (2002, 2004), information about the domestic encompassing interest is only of minor interest to the Commission.

Not all interest groups are equally able to supply the demanded access goods. Hence, variation in interest group influence is the result of a varying ability to provide the goods demanded by the European Commission. Bouwen (2002, 2004) considers the organizational form of interest groups to be the crucial explanatory variable for the supply of access goods and thus the ability to exert influence. According to Bouwen, companies have enough resources to act individually at the national

⁶ According to Bouwen (2002, 2004), the Commission, the Council and the European Parliament require each access good to a varying degree. Since this analysis concentrates on interest group influence on policy proposals elaborated by the European Commission, only the Commission's demands will be further explained.

and the European level. Since they are directly active in the market and dispose of high financial and personnel resources they are particularly good at providing technical expert knowledge. Their hierarchical internal decision-making structure furthermore enables them to quickly provide this access good to the Commission. European Associations are not as good as companies in providing expert knowledge since they have fewer financial and personnel resources and since they represent not only the interest of one single corporate actor but of numerous members. Due to their multi-layered structure, they additionally cannot respond as quickly as companies to demands from the Commission. However, European Associations are particularly good in providing information about the European encompassing interest since they manage to aggregate very diverse interests and to produce a consensus among them. Thus, they can easily provide information about common European interests. National Associations by contrast provide high quality information about the domestic encompassing interest but are not very good at providing expert knowledge or information about the European encompassing interest.

From the theoretical assumptions concerning the Commission's demands for access goods and the supply of access goods by companies, European and National Associations, the following hypothesis can be formulated:

Hypothesis 2: Companies exert more influence on policy formulation than European Associations which in turn are more influential than National Associations.

2.2. Theorizing the effect of the issue-context

Recent literature suggests that interest group influence varies considerably from one issue to another. It is assumed that influence is not a mere function of interest group characteristics, but strongly shaped by the issue context. The issue is the decision at stake. Particularly the following dimensions of the issue context are assumed to play a decisive role: The salience of an issue, the complexity of issues, the size of the lobbying perspectives and the location of the status quo.

Salience is the importance of issues to interest groups. Policy issues raise a varying amount of attention. Some issues are only of interest to a highly specialized and well-circumscribed sector. However, other policy issues may raise an enormous amount of attention among interest groups and even among the public. If policy issues are not very salient, interest groups trying to influence policy-making should find it rather easy to do so since they do not have many competitors who could push the decision-makers into another direction. However, if policy issues are highly salient and many interest groups are actively trying to shift the policy outcome towards their ideal point, interest groups

should find it difficult to exert influence since policy-makers cannot listen to one single advocate (Mahoney 2007, 2008).⁷ Thus, the following hypothesis can be formulated:

Hypothesis 3: The higher the issue salience, the lower the chance that an interest group can exert influence on policy-making.

Another hypothesis is that interest group influence varies according to the complexity of policy issues (Dür 2008a: 1217). The European Commission plays a crucial role in European policy-making since it has the sole right of initiative in the first pillar. Only the Commission is able to initiate legislation and is thus responsible for the elaboration of policy proposals. Drafting legislative proposals is a highly complex and lengthy process in which the Commission needs a considerable amount of expertise. Since the Commission is notoriously understaffed (Marks/McAdam 1999: 105, McLaughlin et al. 1993: 201), it is highly dependent on external information in order to elaborate policy proposals (Balme et al. 2002: 54, Saurugger 2002, 2003: 29). However, the need of expertise varies from policy proposal to policy proposal. Some proposals may concern the entire internal market and may be highly technical whereas other proposals may only affect a very small sector and only constitute a small modification to existing legislation. Thus, the scope and the technicality of legislative proposals determine the degree of complexity. The chance of being influential should be particularly high if policy proposals are highly complex because in those cases, the European Commission is highly dependent on external expertise. Thus, the following hypothesis can be formulated:

Hypothesis 4: The higher the complexity of a policy proposal, the higher the chance of an interest group to be influential.

Recent work on lobbying in the United States has furthermore identified the size of the lobbying perspective as an important variable affecting interest group influence (Baumgartner et al. forthcoming, Leech et al. 2007). A “lobbying perspective” is defined as a group of actors trying to achieve the same policy outcome (Baumgartner et al. forthcoming: 13). Thus, the more interest groups are located on the same side of the initial policy position of the European Commission, the more likely it is that this policy perspective will be influential. It does not matter whether these groups formally cooperate by exchanging information or coordinating strategies. As long as they are located on the same side of the policy scale, they push the Commission in the same direction and can thus be considered as one lobbying team. Hence, one can derive the following hypothesis:

⁷ Being aware that issue salience can also be triggered by interest group activity, this analysis conceptualizes salience as an exogenous variable. However, in order to control for interest group strategies that aim at deliberately increasing the salience of an issue, interest groups will be questioned about outside lobbying strategies (e.g. demonstrations, protests) in the questionnaire.

Hypothesis 5: The higher the number of interest groups that belong to the same lobbying perspective, the higher the chance of an interest group to be influential.

Another important issue variable is the existence and location of the status quo. Status quo is defined as the existence of binding general legislation on the European level. The existence of a status quo has important implications for the study of interest group influence. The status quo is already the result of earlier rounds of policy-making thus constituting a compromise among different stakeholders (see also Baumgartner et al. forthcoming: 27). Since the European institutions have already agreed on this specific policy position, the Commission anticipates bigger resistance if it moves further away from the status quo. Thus, if a status quo already exists, interest groups who are located closer to this status quo should find it easier to influence the policy-making process than interest groups located further away from the status quo.

Hypothesis 6: The chance of being influential is higher for interest groups located on the same side of the initial Commission position than for groups located on the other side of the policy scale.

The theoretical expectations are summarized in Figure 1.

3. Research Design

In order to measure interest group influence, the so-called preference attainment approach will be employed (Dür 2008b). Political controversies are modeled spatially and each actor involved can be placed on a point of a policy scale to represent the position that it favors. By comparing the policy output with the policy preferences of interest groups, one can draw conclusions about the winners and losers of the decision-making process. This approach offers several advantages (Dür 2008b): It provides an objective measurement of influence, it covers all channels of influence and it can be applied to a large number of cases. However, this method also suffers from several problems, namely the black-boxing of the processes through which influence is exercised, alternative explanatory factors accounting for the coincidence between policy output and preferences and the measurement of preferences (Dür 2008b).

While it is an advantage of the preference attainment approach that it covers all paths to influence, it is not clear through which of these processes influence is in fact exerted. Even though this black-boxing

problem cannot be completely solved, the concentration on one particular phase of the policy-cycle could make this problem less severe since fewer actors are involved than in the complete policy-making process. This paper therefore concentrates on the policy formulation phase and thus interest group influence on the policy proposal of the European Commission is analyzed. The European Commission has the sole right of initiative in the first pillar so legislative policy-making in this pillar always starts with a proposal of the Commission. The elaboration of a proposal is a long process in which various stakeholders are consulted. Since the Commission's proposal is the basis for further debate between the Council and the European Parliament, it is more difficult for the other institutions to modify than to accept the policy proposal (Thomson/Hosli 2006: 14f). Accordingly, a former Secretary General of the European Commission commented that "for interest groups in particular, the proposal stage often offers the most fertile opportunities for exerting influence" (Thomson/Hosli 2006: 15). Hence, the policy formulation stage is of crucial importance to interest groups in order to influence the final policy output.

The problem of controlling for alternative explanatory factors refers to the fact that if the policy output reflects the interest groups' policy preferences, it does not necessarily mean that the policy output can be attributed to the lobbying activities of a particular interest group. The objectives of interest groups and the policy preferences of decision-makers could, for instance, just coincide and an interest group was then just lucky (Barry 1980a, 1980b). However, being aware of this limitation, this method can still bring us a great deal further in influence measurement: It allows us to determine which interest groups were successful in shifting the policy output towards their ideal point. Success then constitutes the sum of influence and luck. So even though one might not be able to identify which particular interest group caused the policy shift, one can determine the degree of "success" of an interest group defined as the probability of getting the policy outputs one wants (Barry 1980b). Furthermore, if the analysis of interest group success of a large number of interest groups across a large number of issues reveals a systematic pattern, it is plausible to assume that success is not only caused by luck but by influence. In the course of this paper, success will be therefore used as a proxy for interest group influence.

In order to measure policy positions, quantitative text analysis was used to extract policy positions from texts. I used *Wordfish*, the most recent innovation in quantitative text analysis, since this program allows estimating policy positions without any prior knowledge about the texts (Proksch/Slapin 2008, Slapin/Proksch 2008). As demonstrated elsewhere (Klüver 2008), this method provides policy position estimates which highly correlate with estimates derived from manual hand-coding and estimates derived from *Wordscores* (Laver et al. 2003). However, whereas hand-coding is highly labor intensive and suffers from a lack of reliability (Mikhaylov et al. 2008), *Wordscores* requires reference texts with

known policy positions which are so far not available in interest group research. Hence, *Wordfish* provides the best technique to measure interest group preferences on a large empirical scale. Drawing on the relative frequency of words and based on the assumption that words are distributed according to a Poisson distribution, *Wordfish* estimates policy position estimates for texts. The model is the following:

$$y_{ij} \sim \text{Poisson}(\lambda_{ij})$$

$$\lambda_{ij} = \exp(\alpha_i + \psi_j + \beta_j * \omega_i)$$

y_{ij} is the count of word j in text i . α is a set of text effects that control for the length of the documents. ψ is a set of word fixed effects that control for the fact that some words, such as articles or prepositions, are generally used more frequently than other words. β is an estimate of a word specific weight capturing the importance of word j in discriminating between policy positions and ω is the estimate of actor i 's policy position. The entire right-hand side of the equation is estimated by an expectation maximization (EM) algorithm (for further details see Slapin/Proksch 2008). In order to identify the model, α_i and the mean of all policy positions of actors are set to zero and the standard deviation is set to one. Confidence intervals for the estimates are obtained drawing on a parametric bootstrap.

In order to measure policy positions of interest groups, their submissions in online consultation of the European Commission were analyzed.⁸ Online consultations were introduced in 2000 and have become a regular instrument of consultation for major policy initiatives (European Commission 2002). Between 2000 and October 2008, 535 online consultations were carried out thus providing researchers with a fruitful new data source (Quittkat/Finke 2008: 206). Based on a consultation paper, interest groups have the opportunity to submit comments for an eight week consultation period before the final policy proposal is decided upon.⁹ The Commission positions will be extracted from the consultation draft and the preamble of the final policy proposal. By comparing the preliminary draft and the final policy proposal, one can assess which interest groups were successful in shifting the Commission's position. Using online consultations, it is possible to control for interest group access to the European Commission: Only interest groups who actively lobbied on the issue and were able to establish contact with the Commission will be analyzed. Being aware that there are other channels for influencing the policy proposal, most interest groups trying to influence the proposal should be covered by the

⁸ Being aware that the submissions may reflect "strategic" rather than "true" policy positions (Frieden 2002, Thomson/Stokman 2006: 37f), this should not constitute a problem for the analysis since this study focuses on the policy positions that in fact have been transmitted to the Commission. Only transmitted policy positions – even if they over- or understate the "true" ideal policy positions – are taken into account by the Commission and therefore constitute the basis for the influence measurement.

⁹ Interest group comments are only published once the deadline for submissions has passed so interest groups are not aware of the comments submitted by other actors when submitting their own response.

analysis since online consultations constitute the easiest form of access. As empirical research accordingly shows, a wide variety of actors indeed participates in online consultations, e.g. business associations, individual companies and NGOs of international, European, national and sub-national origin (Quitkat/Finke 2008).

In order to employ *Wordfish*, the documents had to be edited before the analysis. The documents used for the analysis need to be encyclopedic statements of the actors' policy positions thus all text passages not directly referring to the policy issue in question were removed from the documents.¹⁰ Before being able to perform quantitative text analysis, all texts had to be transformed in digital format thus optical character recognition software was used to digitalize scanned documents.¹¹ Then all documents were transformed into text (.txt) files. I furthermore wrote a PHP script in order to automate the following modifications necessary for the *Wordfish* analysis:¹² Symbols were removed, British and American spelling was unified and all words were transformed to lowercase. Then, interest group names were removed from each submission and the spelling check of *Crimson Editor* was used to correct mistakes. As *Wordfish* requires a word frequency matrix as input, the program *jfreq* was used to produce such a matrix. Using *jfreq*, stop words, numbers and currencies were removed from the documents and the words were stemmed (reduced to their root). At last, following the recommendation of the *Wordfish* creators, all stems that were only mentioned in 15 per cent or less of the texts per policy issue were removed from the word matrix.

Since identification in *Wordfish* is guaranteed by setting the mean of all policy positions to zero and the standard deviation to one, the total variance of policy positions is fixed so that absolute distances cannot be compared across different issues. Hence, interest group influence cannot be measured by simply looking at the change of absolute distances. However, there are three ways to circumvent this problem: First, interest group influence can be measured dichotomously by evaluating if the Commission moved towards the ideal points of interest groups. Second, interest group influence can be measured dichotomously by assessing whether the distance between policy positions of interest groups and the Commission is smaller at t_1 than at t_0 . Third, one could use the relative change of distance between the Commission and an interest group from time point t_0 to t_1 as a metric measurement for interest group influence. The influence estimates of these approaches correlate highly

¹⁰ Such as contact details or information about the interest group in general. Moreover, in semi-standardized consultations interest groups sometimes repeat questions posed by the Commission word by word. Thus, without removing these repetitions, these texts would automatically score closer to the Commissions' position than texts not repeating these questions. All word-by-word citations were therefore removed from the interest group submissions.

¹¹ The correct recognition of scanned documents was then checked manually. I thank Max Zalewski for helping me converting scanned documents into digital format.

¹² I thank Malte Klüver for assistance in writing the script.

at a minimum of 0.82. However, in order to check the robustness of the results, all three measurements will be applied in the analysis.

In order to examine the effect of the issue-context on interest group influence, this paper analyzes interest group influence across several issues. Only policy proposals for directives and regulations subject to codecision and consultation will be analyzed in order to focus on general binding legislation and to control for the mode of decision-making.¹³ I used *Prelex* to produce a list of all Commission proposals for regulations and directives adopted under Codecision and Consultation between 01.01.2000 and 31.12.2008. Since not every Directorate General (DG) conducted online consultations, I only focused on those having used consultations and whose competence concerns a substantial policy field (n=19).¹⁴ Between 01.01.2000 and 31.12.2008 these DGs proposed 991 regulations and directives subject to Consultation and Codecision. I looked at all these proposals to determine whether an online consultation was conducted during its elaboration by drawing on internet research and the DemoCiv-database kindly provided by Beate Kohler, Christine Quittkat and Barbara Finke.¹⁵ In total I identified 162 consultations which were conducted prior to the adoption of a policy proposal. However, not all of these can be used for the analysis: 41 consultations were excluded since they were conducted in a standardized format with given questions and answers and thus textual data is not available.¹⁶ 51 consultations were excluded since the submissions were not published, 6 consultations were excluded since the Commission did not release any prior position paper and 4 consultations had to be excluded due to other reasons.¹⁷ Thus, 60 issues remain for the analysis. One of the issues, REACH, raised an extremely high amount of attention. Around 6000 submissions were received during this single online consultation. Since the analysis of this single issue would consume more resources than all other 59 issues together and since REACH was already subject of numerous studies (e.g. Persson 2007), it was excluded from the analysis. Hence, the overall research project analyzes interest group influence on 59 policy proposals. This paper presents first preliminary results stemming from the analysis of interest group influence on 15 policy proposals.

¹³ The Commission furthermore consults on broad strategies, non-binding legislation and the implementation of legislation which is already in force.

¹⁴ Online consultations conducted by the Secretariat General were thus excluded.

¹⁵ The DemoCiv database was constructed by the research project on "Democratic Legitimacy via Civil Society Involvement? The Role of the European Commission" conducted by Beate Kohler, Christine Quittkat and Barbara Finke at the Mannheim Centre for European Social Research.

¹⁶ In theory, one could use item-response-theory in order to extract policy positions from submissions in standardized consultations. However, since the Commission is not filling out questionnaires, one cannot measure the Commission's position. Thus, this research project is limited to the study of open and semi-standardized consultations.

¹⁷ One regulation was excluded since it constitutes a mere recodification of already existing legislation. One directive and one regulation were excluded since they only implement an already signed international convention into European law. A fourth directive was excluded since the consultation was not based on one single but on six consultation papers. Interest groups therefore respond to different subissues based on one, several or all six consultation documents. Thus, it is not possible to determine one single policy dimension using quantitative text analysis.

Since the European Commission received 5161 submissions from a wide variety of stakeholders, I classified all stakeholders that submitted comments into nine groups: membership organizations (2719), companies (806), national public authorities (811), researchers (149), individuals (411), international public actors (54), third states (57), political parties (8) and others (146). In order to keep the workload manageable, I only concentrate on membership organizations, companies and national public authorities. Previous studies have shown that membership organizations and companies are the most important lobbying actors (e.g. Baumgartner et al. forthcoming, Coen 1998) and they also constitute the biggest groups participating in online consultations. Comments by national public authorities will be analyzed in order to control for policy positions of Member States. Since *Wordfish* only works with texts in the same language and with a minimum amount of words, non-English submissions and submissions with less than 100 words were furthermore excluded.¹⁸

Information about the nature of the interest and the organizational form of interest groups was retrieved from their websites, more specifically from organizational statutes and self-descriptions. According to the members and interests they represent, interest groups were classified as cause group or sectional group. According to their organizational form they were classified as companies, European or National Associations. Saliency was measured by the total number of submissions received during the online consultation. The complexity of the policy issue was measured by the number of words of the policy proposal excluding the explanatory memorandum. The size of the lobbying perspective was measured by the number of interest groups left and right of the initial Commission position. *EurLex* as well as information provided in the policy proposal was used in order to assess whether a status quo defined as general binding legislation on the EU level already existed. Text Analysis of the preamble of the existing legislative act was then used in order to determine the location of the status quo. Since absolute distances cannot be compared across different issues, a dummy variable is used for the status quo effect: If interest groups were located on the same side of the initial policy position of the Commission as the status quo, the status quo variable is coded one. If they are located on the other side of the policy scale, the variable is coded zero.

4. Empirical Analysis

4.1. Testing the effect of nature of the interest

First of all, the effect of the nature of the interest on interest group influence will be empirically tested.

¹⁸ 145 non-English submissions from membership groups, companies and national public actors had to be excluded for the fifteen policy issues analyzed so far. 7 texts had to be excluded since they contain less than 100 words.

According to the first hypothesis, sectional groups are more influential than cause groups.¹⁹ Looking at the distribution of influence across cause and sectional groups, we find that among all cause and sectional groups, influence is distributed in a quite unbalanced way (see table 1): Whereas 73.4 per cent of all influential groups are sectional groups, only 26.6 per cent are cause groups. However, if we control for the absolute number of groups per group type, this distribution is not that uneven anymore. Of all cause groups who participated in the analyzed consultations, 50.0 per cent were influential. In comparison, 52.4 per cent of all sectional groups active on these issues were influential. Thus, when controlling for the number of groups actually active on the issues, influence is distributed quite equally. Accordingly, there is no statistically significant difference between cause groups and sectional groups in terms of influence on policy formulation as indicated by the test of significance and the correlation coefficient (see notes below table 1). Thus, sectional groups constitute the larger share of influential groups since cause groups were simply not as numerous as sectional groups.

After having examined the distribution of influence using descriptive statistics, I now examine the effect of the nature of the interest using regression analysis. Since lobbying activities of interest groups are grouped within issues, the data is of hierarchical nature and hence multilevel modeling would be the appropriate technique for analysis. However, since I so far only analyzed 15 issues (11 issues with a status quo), the number of second level units is not sufficient for a multilevel analysis and thus I will use ordinary logistic and linear OLS regression for now and apply multilevel modeling once all 59 issue are analyzed.²⁰

The regression analysis confirms the findings of the descriptive statistics (see table 2): The nature of the interest does not have any statistically significant effect on interest group influence. This finding is constant across all twelve models estimated in the analysis. No matter which influence measurement is used and no matter whether a simple bivariate analysis is performed or a multivariate analysis controlling for issue related variables is estimated, the nature of the interest does not have any significant effect on interest group influence. The overall model fit of the bivariate models (model 1, 3, 5, 7, 9 and 11) is accordingly zero across all six models. Hence, one can conclude that contrary to hypothesis one, sectional groups are not more influential than cause groups. Nature of the interest does not have any effect on interest group influence.

¹⁹ Due to illustration purposes, descriptive statistics will only be presented for the first influence measurement, namely the assessment whether the Commission moved into the direction of an actor's ideal point. The two further influence measurements will however be presented in the regression analysis.

²⁰ The exact minimum number of second level units is still discussed in the literature, however a minimum of 30 second level units is widely acknowledged (for a discussion, see Maas/Hox 2004).

4.2. Testing the effect of organizational form

According to hypothesis two, companies should be more influential than European interest groups whereas the latter should be more influential than national interest groups. Of all influential companies and European as well as National Associations, 26.6 per cent constitute individual companies, 39.1 per cent constitute European Associations and 34.3 per cent constitute National Associations (see table 3). Looking at the share of influential groups per organizational format, 51.6 per cent of all companies, 57.6 per cent of all European Associations and 48.9 per cent of all National Associations were influential. Hence, just by looking at the distribution of influence using descriptive statistics, it becomes clear that companies are not the most influential interest groups when compared to European and National Associations. By contrast, European Associations constitute the largest share of all influential groups, no matter whether measured in total or whether controlled for number of groups per organizational form. The correlation of organizational form and interest group influence is close to zero and accordingly there is no statistically significant effect (see notes below table 3). Just by looking at simple cross-tabs and descriptive statistics, one can thus already reject hypothesis two.

These preliminary findings will now be tested using logistic and linear OLS regression analysis (see table 4). None of the bivariate models displays a statistically significant effect of organizational form on interest group influence. No matter which influence measurement is used, the effect remains insignificant. However, when controlling for issue related variables, the models drawing on a dichotomous measurement of influence (model 14, 16, 18, 20 and 22) contain a significant effect for one of the dummy variables used to measure the effect of organizational form. However, these effects are not robust: Whereas the direction of the effect of being a National Association as compared to companies is always negative, this effect is only significant in model 16 and 20. Thus, there is only a statistically significant effect when controlling for issue-related variables and when limiting the analysis to issues for which a status quo existed. Moreover, the significance of this effect is not confirmed when using the metric influence measurement. Concerning the effect of being a European Association as compared to companies, the findings are even more inconclusive: In contrast to hypothesis two, the effect is positive in eleven of the twelve models, only model 19 displays a negative effect as predicted. In addition, the effect of organizational form is only significant in model 14, 18 and 22. The lack of explanatory power of organizational form is confirmed by the overall model fit of the bivariate models: The Pseudo R^2 and Adjusted R^2 respectively range from 0.00 to 0.01. Thus, one can conclude that contrary to hypothesis two, organizational form cannot account for variation in interest group influence.

4.3. Testing the effect of issue related variables

According to hypothesis three, salience has a negative effect on interest group influence. It was assumed that the higher the salience of a policy issue, the lower the chances of an interest group to be influential. The empirical analysis however reveals no robust effect of salience on interest group influence (see table 5, but also table 3 and table 4). The effect of salience on interest group influence is only significant in two out of eighteen models which control for issue-related variables (model 24 and model 30). However, not only the significance of the effect of issue salience is inconsistent, also the direction of the effect does not remain stable. Out of the eighteen models controlling for issue-related variables, seven display a negative effect whereas eleven models indicate a positive effect. In addition, the size of the effect is extremely small. Hence, contrary to hypothesis three, salience does not have a robust effect on interest group influence.

Hypothesis four suggested a positive relationship between the complexity of policy proposals and interest group influence. In fact, sixteen of the eighteen models controlling for issue-variables display a significant effect of complexity on interest group influence. However, in contrast to hypothesis four, complexity has a negative effect on interest group influence across all the eighteen models. Thus, based on the preliminary analysis of fifteen policy issues interest groups are less influential on more complex issues and hypothesis four therefore needs to be rejected. Since this effect is however extremely small, it is quite likely that this effect does not remain stable when analyzing more policy issues. Hence, further investigation is needed for the effect of complexity on interest group influence.

According to hypothesis five, the size of the lobbying perspective is positively correlated with interest group influence. Hence, it was assumed that the chance of being influential increases with the number of interest groups located on the same side of the initial Commission position. The empirical analysis confirms this hypothesized relationship: Across all eighteen models the size of the lobbying perspective has a highly significant positive effect on interest group influence. Thus, the higher the number of interest groups belonging to the same lobbying perspective, the higher the chance of being influential.

Hypothesis six suggested that the chance of being influential is higher when interest groups are located on the same side of the initial Commission position as the status quo. This hypothesis is validated by the multivariate analysis: Across all nine models which control for the location of the status quo, there is a significant and highly positive effect of being located on the same side as the status quo on interest group influence. Hence, interest groups who happen to be on the same side of the policy continuum as the status quo are likely to be more influential than interest groups positioned on the other side of the policy scale. Drawing on the two dichotomous influence measurement, the odds ratio range from 2.42

(model 8) to 5.29 (model 26). Thus, the chance of being influential is at least 2.42 times higher for interest groups being located on the same side of the policy scale as the status quo than for interest groups positioned on the other side.

When comparing the overall model fit of models only including interest group type with models controlling for issue characteristics, it becomes clear that issue characteristics are highly superior in explaining variation in interest group influence: The average Pseudo R^2 is 0.27 and the average Adjusted R^2 is 0.23 for models controlling for issue characteristics whereas the average Pseudo R^2 as well as the average Adjusted R^2 is zero for models only controlling for interest group type. Hence, whereas issue characteristics dispose of a high explanatory power, the nature of the interest as well as organizational form does not account for variation in interest group influence.

5. Conclusion

The explanation of policy outcomes as well as the democratic legitimacy of the EU crucially depends on how much influence interest groups have and how influence is distributed among them. However, only few studies have addressed the question of influence and most were limited to case studies focusing only on one single issue. These studies are however characterized by contradictory findings and thus this paper attempted to provide solid empirical evidence in order to test existing hypotheses on a large empirical basis. The present version of the paper presented preliminary results on fifteen policy issues stemming from a larger project. After completion of the entire data collection, the analysis will be extended to fifty-nine issues and approximately 3525 observations.

Based on the literature on interest group influence, it was hypothesized that interest group influence is shaped by two groups of variables: On the one hand, interest group influence was assumed to vary according to interest group type. More specifically, two dimensions of interest group type were hypothesized to have an effect on interest group influence: The most prominent hypothesis is that interest group influence varies according to the nature of the interest (e.g. Dür/de Bièvre 2007a, Persson 2007, Schneider/Baltz 2003). Cause groups should find it more difficult to influence policy outcomes than sectional groups since they are less well endowed with resources. Pieter Bouwen (2002, 2004) by contrast hypothesized that the organizational form plays a crucial role for being able to influence the decision-making process. According to Bouwen (2002, 2004), companies are more powerful than European and National Associations in influencing the policy-making process since they are better able to provide access goods to decision-makers. On the other hand, scholars have recently pointed out the importance of issue related factors for interest group influence (e.g.

Baumgartner et al. forthcoming, Mahoney 2007, 2008). According to the characteristics of the policy issue at hand, interest groups influence is assumed to vary across issues. However, since most of the few studies on interest group influence in the EU actually concentrate on one or just a few policy issues, the effect of issue related variables could not be empirically tested since the issue context is held constant (for an exception, see Mahoney 2008).

The lack of large-N studies controlling for issue variables is mainly due to methodological difficulties in measuring influence. Hence, this paper employed a new approach: Drawing on a quantitative text analysis performed with *Wordfish*, policy preferences of interest groups were compared with the policy proposal in order to identify the winners and the losers of the decision-making process. While controlling for interest group type, the effect of issue-related variables on interest group influence was tested across fifteen policy issues.

The preliminary results show no evidence for a significant effect of interest group type on interest group influence. Neither nature of the interest nor organizational form had a consistent effect on interest group influence. Hence, based on this preliminary analysis, two existing hypotheses in interest group research need to be rejected. By contrast, issue characteristics explained a high share of variation in interest group influence: Being located on the same side of the initial Commission position as the status quo had a significant and strong positive effect on interest group influence. The size of the lobbying perspective understood as the number of interest groups located on the same side of the initial Commission position also had a significant and positive effect on interest group influence. Whereas the significance and direction of these two effects remain robust over a plurality of different models, the effects of salience and complexity of the policy proposal are inconclusive. Salience and complexity only have a very small effect which is not significant across all models. The direction of the salience effect even varies across the models. Hence, whereas the size of the lobbying perspective and being located on the same policy side as the status quo have a strong and robust effect, salience and complexity of the policy proposal need to be further investigated. However, it can already be concluded from this preliminary analysis that issue characteristics have a high explanatory power whereas interest group type cannot account for variation in interest group influence.

References

- Balme, Richard/Chabanet, Didier/Wright, Vincent (Eds.) (2002): *L'Action collective en Europe. Collective Action in Europe*, Paris: Presses de Sciences Po.
- Barry, Brian (1980a): Is it better to be powerful or lucky? Part 1, *Political Studies*, 28, 2, 183-194.
- Barry, Brian (1980b): Is it better to be powerful or lucky? Part 2, *Political Studies*, 28, 3, 338-352.
- Baumgartner, Frank R. et al. (forthcoming): *Lobbying and Policy Change: Who Wins, Who Loses, and Why*, Chicago: University of Chicago Press.
- Berkhout, Joost /Lowery, David (2008): Counting organized interests in the European Union: a comparison of data sources, *Journal of European Public Policy*, 15, 4, 489 - 513.
- Bernhagen, Patrick/Bräuninger, Thomas (2005): Structural Power and Public Policy: A Signaling Model of Business Lobbying in Democratic Capitalism, *Political Studies*, 53, 1, 43-64.
- Beyers, Jan/Eising, Rainer/Maloney, William (2008): Researching Interest Group Politics in Europe and Elsewhere: Much We Study, Little We Know?, *West European Politics*, 31, 6, 1103 – 1128.
- Bouwen, Pieter (2002): Corporate Lobbying in the European Union: The Logic of Access, *Journal of European Public Policy*, 9, 3, 365-390.
- Bouwen, Pieter (2004): Exchanging Access Goods for Access: A Comparative Study of Business Lobbying in the European Union Institutions, *European Journal of Political Research* 43, 3, 337–369.
- Coen, David (1998): The European Business Interest and the Nation State: Large-Firm Lobbying in the European Union and Member States, *Journal of Public Policy*, 18, 1, 75-100.
- Dür, Andreas (2008a): Interest groups in the European Union: How powerful are they?, *West European Politics*, 31, 6, 1212-1230.
- Dür, Andreas (2008b): Measuring Interest Group Influence in the EU: A Note on Methodology, *European Union Politics*, 9, 4.
- Dür, Andreas/de Bièvre, Dirk (2007a): Inclusion without influence? NGOs in European Trade Policy, *Journal of Public Policy*, 27, 1, 79-101.
- Dür, Andreas/de Bièvre, Dirk (2007b): The Question of Interest Group Influence, *Journal of Public Policy*, 27, 1, 1-12.
- European Commission (2002): Towards a reinforced culture of consultation and dialogue - General principles and minimum standards for consultation of interested parties by the Commission, COM(2002) 704 final, http://ec.europa.eu/governance/docs/comm_standards_en.pdf, last accessed on 27.01.2008
- Frieden, Jeffrey A. (2002): Real Sources of European Currency Policy: Sectoral Interest and European Monetary Integration, *International Organization*, 56, 4, 831-860.
- Greenwood, Justin (2007): *Interest Representation in the European Union*, Second Edition, Basingstoke: Palgrave Macmillan.
- Klüver, Heike (2008): Online Consultations in the European Union: Measuring interest group influence using content analysis, Paper presented at the 4th Pan-European Conference on EU Politics of the ECPR Standing Group on European Politics, University of Latvia, Riga, 25-27 September 2008.
- Laver, Michael/Benoit, Kenneth/Garry, John (2003): Extracting policy positions from political texts using word as data, *American Political Science Review*, 97, 2, 311-331.

- Leech, Beth et al. (2007): Does money buy power? Interest group resources and policy outcomes, Paper presented at the annual meeting of the Midwest Political Science Association: in Paper presented at the annual meeting of the Midwest Political Science Association, Chicago.
- Maas, Cora J. M./Hox, Joop J. (2004): Robustness issues in multilevel regression analysis, *Statistica Neerlandica*, 58, 2, 127-137.
- Mahoney, Christine (2004): The Power of Institutions: State and interest group activity in the European Union, *European Union Politics*, 5, 4, 441-466.
- Mahoney, Christine (2007): Lobbying Success in the United States and the European Union, *Journal of Public Policy*, 27, 1, 35-56.
- Mahoney, Christine (2008): Brussels versus the beltway: Advocacy in the United States and the European Union, Washington, D.C.: Georgetown University Press.
- Marks, Gary/McAdam, Doug (1999): On the Relationship of Political Opportunities to the Form of Collective Action: the Case of the European Union, in: Della Porta, Donatella/Kriesi, Hanspeter/Rucht, Dieter (Eds.): *Social Movements in a globalizing world*, Basingstoke: Macmillan, 97-111.
- McLaughlin, Andrew M./Grant, Jordan/Maloney, William A. (1993): Corporate Lobbying in the European Community, *Journal of Common Market Studies*, 31, 2, 191-212.
- Michalowitz, Irina (2007): What determines influence? Assessing conditions for decision-making influence of interest groups in the EU, *Journal of European Public Policy*, 14, 1, 132-151.
- Mikhaylov, Slava/Laver, Michael/Benoit, Kenneth (2008): Coder Reliability and Misclassification in Comparative Manifesto Project Codings: in Paper presented at the annual meeting of the Midwest Political Science Association, Chicago.
- Moravcsik, Andrew (1993): Preferences and Power in the European Community: A Liberal Intergovernmentalist Approach, *Journal of Common Market Studies*, 31, 4, 473-524.
- Moravcsik, Andrew (1998): *The Choice for Europe: Social Purpose and State Power From Rome to Maastricht*, Ithaca: Cornell University Press.
- Olson, Mancur (1965): *The Logic of Collective Action: Public Goods and the Theory of Groups*, Cambridge: Harvard University Press.
- Persson, Thomas (2007): Democratizing European Chemicals Policy: Do Consultations favour civil society participation?, *Journal of Civil Society*, 3, 3, 223-238.
- Pollack, Mark A. (1997): Representing diffuse interests in EC policy-making, *Journal of European Public Policy*, 4, 4, 572-590.
- Proksch, Sven-Oliver/Slapin, Jonathan B. (2008): WORDFISH: Scaling Software for Estimating Political Positions from Texts, Version 1.3., <http://www.wordfish.org>, last accessed on 31.01.2009.
- Quittkat, Christine/Finke, Barbara (2008): The EU Consultation Regime, CONNEX Report Series 5, 183-222.
- Saurugger, Sabine (2002): L'expertise: une forme de participation des groupes d'intérêt au processus décisionnel communautaire, *Revue française de Science Politique*, 52, 4, 375-401.
- Saurugger, Sabine (2003): *Européaniser les intérêts? Les groupes d'intérêt économiques et l'élargissement de l'Union européenne*, Paris: Harmattan.
- Schneider, Gerald/Baltz, Konstantin (2003): The Power of Specialization: How Interest Groups Influence EU Legislation, *Rivista di Politica Economica*, 93, 1-2, 253-283.
- Schneider, Gerald/Baltz, Konstantin (2005): Domesticated Eurocrats: Bureaucratic discretion in the legislative pre-negotiations of the European Union, *Acta Politica*, 40, 1-27.

- Slapin, Jonathan B./Proksch, Sven-Oliver (2008): A Scaling Model for Estimating Time-Series Party Positions from Texts, *American Journal of Political Science*, 52, 3.
- Stewart, John David (1958): *British Pressure Groups: Their role in relation to the House of Commons*, Oxford: Clarendon Press.
- Stone Sweet, Alec/Sandholtz, Wayne (1997): European integration and supranational governance, *Journal of European Public Policy*, 4, 3, 297-317.
- Thomson, Robert/Hosli, Madeleine O. (2006): Explaining legislative decision-making in the European Union, in: Thomson, Robert et al. (Eds.): *The European Union decides*, Cambridge: Cambridge University Press, 1-24.
- Thomson, Robert/Stokman, Frans (2006): Research Design: measuring actors' positions, saliences and capabilities, in: Thomson, Robert et al. (Eds.): *The European Union decides*, Cambridge: Cambridge University Press, 25-53.
- Warleigh, Alex (2000): The hustle: citizenship practice, NGOs and 'policy coalitions' in the European Union - the cases of Auto Oil, drinking water and unit pricing, *Journal of European Public Policy*, 7, 2, 229-243.
- Woll, Cornelia (2007): Leading the Dance? Power and Political Resources of Business Lobbyists, *Journal of Public Policy*, 27, 1, 57-78.

Tables and Figures

Figure 1: Theoretical model

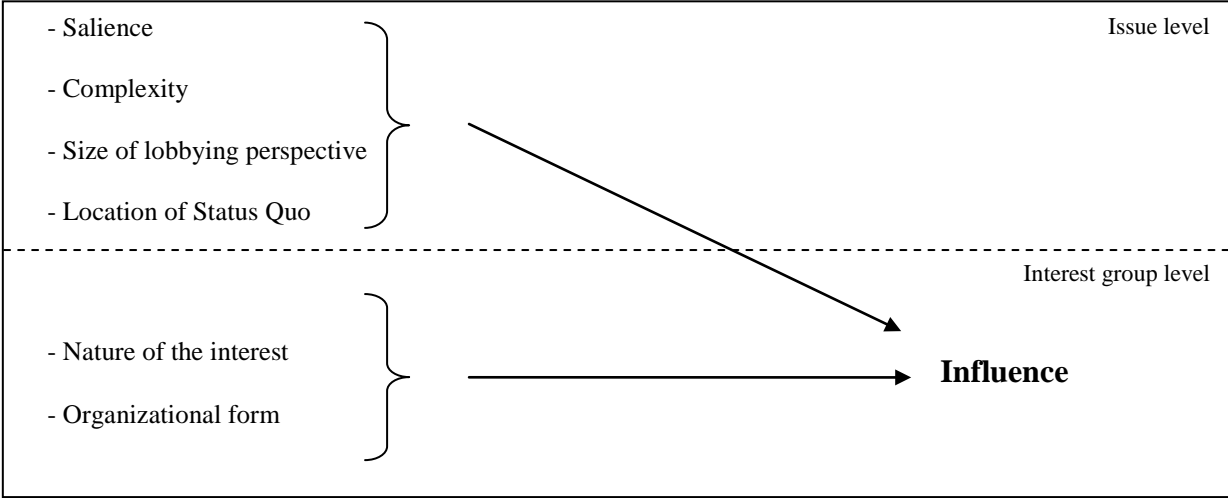


Table 1: Influence of Cause Groups vs. Sectional Groups

Group type	Influential groups			Total number of groups (n=524)
	% of all influential groups	% of group type	number of influential groups (n=271)	
Cause Groups	26.6	50.0	72	144
Sectional Groups	73.4	52.4	199	380

Notes: Pearson Chi2(1) = 0.2346, p = 0.628, Cramer’s V = 0.0212

Table 3: Influence according to organizational form

Organizational form	Influential groups			Total number of groups (n=592)
	% of all influential groups	% of organizational form	Number of influential groups (n=312)	
Companies	26.6	51.6	83	161
European Associations	39.1	57.6	122	212
National Associations	34.3	48.9	107	219

Notes: Pearson Chi2(2) = 3.3798, p = 0.185, Cramer’s V = 0.0756

Table 2: Effect of nature of the interest with and without controlling for issue variables- Results from logistic and linear OLS regression

Variables	Influence = Commission moved towards actor's ideal point (dichotomous)				Influence = Distance to Commission decreased (dichotomous)				Influence = Distance to Commission decreased (metric)			
	All issues		Only issues with SQ		All issues		Only issues with SQ		All issues		Only issues with SQ	
	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
<i>Interest group level</i>												
<i>Sectional group (ref: cause groups)</i>	1.10 (0.22)	1.02 (0.23)	1.44 (0.33)	1.09 (0.31)	1.01 (0.20)	0.86 (0.20)	1.26 (0.29)	0.98 (0.27)	-0.01 (0.06)	-0.02 (0.05)	0.06 (0.07)	0.02 (0.06)
<i>Issue level</i>												
<i>Salience</i>		0.99 (0.00)		0.99 (0.00)		0.99 (0.00)		0.99 (0.00)		-0.00 (0.00)		0.00 (0.00)
<i>Complexity</i>		0.99*** (0.00)		0.99* (0.00)		0.99*** (0.00)		0.99** (0.00)		-0.00*** (0.00)		-0.00* (0.00)
<i>Size of lobbying perspective</i>		1.06*** (0.01)		1.06*** (0.01)		1.06*** (0.01)		1.06*** (0.27)		0.01*** (0.00)		0.01*** (0.00)
<i>Located on same side as Status Quo</i>				4.79*** (1.27)				2.42** (0.64)				0.16* (0.06)
N	524	524	419	419	524	524	419	419	524	524	419	419
Prob>chi ² / Prob>F	0.63	0.00	0.11	0.00	0.97	0.00	0.32	0.00	0.88	0.00	0.39	0.00
Pseudo R ² / Adj. R ²	0.00	0.22	0.00	0.29	0.00	0.26	0.00	0.28	0.00	0.20	0.00	0.22

Notes: Regression coefficients of the logistic regressions (model 1 – 8) are indicated as odds ratios. Standard errors in parentheses. *significant at the p<0.05 level, ** significant at the p<0.01 level, *** significant at the p<0.001 level.

Table 4: Effect of organizational form with and without controlling for issue variables - Results from logistic and linear OLS regression

	Influence = Commission moved towards actor's ideal point (dichotomous)				Influence = Distance to Commission decreased (dichotomous)				Influence = Distance to Commission decreased (metric)			
	All issues		Only issues with SQ		All issues		Only issues with SQ		All issues		Only issues with SQ	
	Model 13	Model 14	Model 15	Model 16	Model 17	Model 18	Model 19	Model 20	Model 21	Model 22	Model 23	Model 24
<i>Interest group level</i>												
<i>European Associations (ref: companies)</i>	1.27 (0.27)	1.91* (0.48)	1.07 (0.25)	1.41 (0.43)	1.22 (0.26)	1.86* (0.47)	0.87 (0.21)	1.13 (0.34)	0.11 (0.07)	0.18** (0.06)	0.06 (0.08)	0.13 (0.07)
<i>National Associations (ref: companies)</i>	0.90 (0.19)	0.96 (0.24)	0.70 (0.17)	0.52* (0.16)	0.88 (0.19)	0.96 (0.25)	0.63 (0.15)	0.50* (0.15)	-0.02 (0.07)	0.00 (0.06)	-0.09 (0.08)	-0.10 (0.07)
<i>Issue level</i>												
<i>Salience</i>		1.00 (0.00)		1.00 (0.00)		0.99 (0.00)		1.00 (0.00)		0.00 (0.00)		0.00* (0.00)
<i>Complexity</i>		0.99*** (0.00)		0.99 (0.00)		0.99*** (0.00)		0.99** (0.00)		-0.00*** (0.00)		-0.00 (0.00)
<i>Size of lobbying perspective</i>		1.05*** (0.01)		1.05*** (0.01)		1.06*** (0.01)		1.05*** (0.01)		0.01*** (0.00)		0.01*** (0.00)
<i>Located on same side as Status Quo</i>				4.82*** (1.22)				2.91*** (0.72)				0.24*** (0.06)
N	592	592	462	462	592	592	462	462	592	592	462	462
Prob>chi ² / Prob>F	0.18	0.00	0.13	0.00	0.25	0.00	0.13	0.00	0.09	0.00	0.13	0.00
Pseudo R ² / Adj. R ²	0.00	0.23	0.01	0.32	0.00	0.26	0.01	0.29	0.00	0.21	0.00	0.26

Notes: Regression coefficients of the logistic regressions (model 13 - 20) are indicated as odds ratios. Standard errors in parentheses. *significant at the p<0.05 level, ** significant at the p<0.01 level, *** significant at the p<0.001 level.

Table 5: Effect of issue level characteristics - Results from logistic and linear OLS regression

Variables	Influence = Commission moved towards actor's ideal point (dichotomous)		Influence = Distance to Commission decreased (dichotomous)		Influence = Distance to Commission decreased (metric)	
	Model 25	Model 26	Model 27	Model 28	Model 29	Model 30
<i>Saliency</i>	0.99 (0.00)	1.00 (0.00)	0.99 (0.00)	1.00 (0.00)	0.00 (0.00)	0.00* (0.00)
<i>Complexity</i>	0.99*** (0.00)	0.99** (0.00)	0.99*** (0.00)	0.99*** (0.00)	-0.00*** (0.00)	-0.00* (0.00)
<i>Size of lobbying perspective</i>	1.06*** (0.01)	1.06*** (0.01)	1.06*** (0.01)	1.05*** (0.01)	0.01*** (0.00)	0.01*** (0.00)
<i>Located on same side as Status Quo</i>		5.30*** (1.24)		2.83*** (0.65)		0.24*** (0.06)
N	685	544	685	544	685	544
Prob>chi ² / Prob>F	0.00	0.00	0.00	0.00	0.00	0.00
Pseudo R ² / Adj. R ²	0.24	0.33	0.27	0.29	0.21	0.25

Notes: Regression coefficients of the logistic regressions (model 25 – 28) are indicated as odds ratios. Standard errors in parentheses. *significant at the p<0.05 level, ** significant at the p<0.01 level, *** significant at the p<0.001 level.