Master thesis in political science

**INTERESTS AND RESOURCES:**

**THE FORMATION OF NATIONAL POSITIONS REGARDING EU-POLICIES**

1. Advisor: Prof. Dr. Thomas König
2. Advisor: Prof. Dr. Gerald Schneider

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Andreas Warntjen
Sonnenbühlstraße 46
01/ 436329
9. Semester
Political science, Sociology, Law

Andreas.Warntjen@uni-konstanz.de
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1. Introduction

The political science literature on interest formation assumes, that the formation of national positions in inter- respectively supranational environments is formed by domestic interests\(^1\) and by domestic structures. “Institutions matter”\(^2\) is the rising claim, and the institutionalist formula of politics (preferences x institutions = outcomes) enhances the common notion in comparative politics, that different political system will yield, ceteris paribus, different results\(^3\). Besides the structure of the state, the structure of interest intermediation for explaining policy outcomes has gained increasing attention\(^4\). The influence of certain interest groups is explained by characteristics of the political system, either on a national or sectoral level\(^5\) using the conceptions of pluralism and corporatism\(^6\). Another possibility discussed in the literature is, that the varying influence of interest groups is caused by the nature of the policy. I will use the categorization between old and new policy fields to test this notion. Again, the results of my test may not lead to a definitive falsification of the theory. Therefore, I will also try to give a positive explanation of varying interest group power.

In line with the general “systemic” argument Ellen Immergut, building on her comparative study of health politics, claims that: “Differences in the power of the interest groups in these nations cannot be explained solely by features particular to the resources of any particular lobbying association... Successful political influence depends not only on the resources of particular interest groups, but also on the properties of the targets at which political pressures are aimed. Institutional configurations are vulnerable to political influence to different extents and at different points.”\(^7\) The power of interest groups, therefore, depends to a certain degree on attributes of the political systems (number and configuration of veto points) and the interest groups’ ability to use their resources accordingly. While highly plausibly, this argument is also highly complex in the last resort, as the attributes of the political system depend on the interaction of a large number of factors. I will use a more parsimonious approach, to explain the influence of interest groups based only on the distribution of preferences and resources. The power of interest groups might not

\(^1\) Moravcsik 1993; Putnam 1988
\(^2\) March/Olsen 1989
\(^3\) Lane/Ersson 1994: 25
\(^4\) Lehmann/Schmit 1982
\(^5\) Cawson 1985; Atkinson/Coleman 1989
\(^6\) Schmitter 1974
\(^7\) Immergut 1992: 7
depend “solely” on their individual attributes, but it will do so to a certain extent. The general question, my master thesis will try to clarify, is, how far will this “individualistic” explanation carry us compared to the “systemic” approach. In other words, is it more important who I am or where I am? Resources will be used as a representative for individual attributes. This could also be captured by looking at different group of actors, sharing common characteristics. However, this distinction, while referring to individual attributes, is more ambivalent. That a certain group is privileged could be caused by the way decisions are reached and is not necessarily related (solely) to its individual attributes. When there are differences for actor groups across systems of interest intermediation or policy fields, this is actually more plausible.

In order to reach an answer to my research question, I will investigate the following in my master thesis:

1. Do interest groups influence national policy?
2. Can the varying influence of interest groups be explained by the characteristics of the system of interest intermediation?
3. Can the varying influence of interest groups be explained by characteristics of the policies?
4. Can the varying influence of interest groups be explained by the distribution of resources?

I will try to find answers to these question by analysing data from the DFG-Program “The relevance of threats and promises in EU bargaining” using spatial models in combination with descriptive statistics, analysis of (co-)variance and multiple regression analysis.
2. Theoretical Background

2.1. Power and Influence

Max Weber has defined power as “the chance to enforce one’s will in a social relationship even against the resistance of others, regardless of the basis on which this chance rests”\(^8\). Power, defined in these terms, is a means to achieve a given end; its possession has no intrinsic, but only an instrumental value. Therefore, it is always intentional, that is, it is must be defined in relation to a given end.\(^9\)

“Everything that needs to be said about power can be said using the idea of the capacity to effect outcomes…”\(^10\) Power is dispositional. There is a crucial difference between having and using power, as both do not need to coincide\(^11\). I might refrain from exercising power, although I am capable of doing so, because it does not suit my interest or because my interest is not very intense. Influence is exercised power.

Descriptive characteristics of power are accordingly:
- its amount
- its distribution (among actors)
- its scope (the power of A over B regarding \(\alpha\))
- its domain (the power of A over B and C)
- kind of resources used (power base)
- skill (in using power)
- motivations (in using power)
- (opportunity) costs\(^12\)

Power has been characterized as a causal relationship, as “… properties used to distinguish causation also serve to define power relations: covariation, temporal sequence, and asymmetry.”\(^13\)

If A causes B, B cannot cause A. Similarly, if A has power regarding B, B cannot have power regarding A. It is important to note, that these statements refer to the power of one person over another person (or group) concerning a specific event.

\(^8\) Max Weber 1980 p.28 (own translation, for a different translation stating power to be the probability to be in a decisive position compare Dahl 1968: 406; cf. Barry 1991); cf. Morriss 1987: 12; cf. Gamson 1974
Overall, A and B might have the same amount of power regarding each other, but each set of power relations is characterized by asymmetry.

Consider now temporal sequence: If A precedes B, A might cause B. Similarly if A’s action (e.g.: statement of his preference, threat, promise) precedes B’s action (conform to A’s preferences), A might have power over B regarding this specific action. This brings us to the problem of anticipated reaction. B might conform to A’s preference, even if A has not voiced them. Specifically, A does not need to threaten or promise B explicitly, as long as B expects A to have power over his action and to be ready to exercise it. “We could define the exercise of power in such a way as to require C[ontrolling unit] to manifest an intention to act in some way in the future, his action to be contingent on R[esponsive unit]’s behavior [sic]. By contrast, C might be said to have power when, though he does not manifest an intention, R imputes an intention to him and shapes his behavior to meet the imputed intention.”

Covariation has been considered so far between the manifestation of intent and behaviour caused by this action. This, however, has serious drawbacks. We already encountered the problem of anticipated reaction, where no behaviour of A precedes the action of B. A further deficiency is the neglect of non-decisions. An actor might be powerful without having to articulate his interests, because he can effectively bar everybody else from doing the same. Some topics, which could lead to an objectionable decision from the point of view of a certain actor, simple never make it to the (public) political agenda: “…to the extent that a person or group … creates or reinforces barriers to the public airing of policy conflicts, that person or group has power.” By drawing only on observable behaviour, non-decisions and, to a certain extent, anticipated (re-)actions are excluded. Furthermore, the assumption is made, that “preferences are revealed through behavior.” This, however, is not necessarily true. Power (or influence), thus, should be defined as a causal relation between preferences and outcome: “A power relation, actual or potential, is an actual or potential causal relation between the preferences of an actor regarding an outcome and the outcome itself.”

17 Bachrach/Baratz 1962: 949; cf. Lukes 1974
18 Immergut 1997: 326
19 Nagel 1975: 29
Power, then, can be observed when an actor B conforms in his actions to the preference of actor A, although this runs counter to his own preferences. This last qualification needs to be emphasized. An actor A cannot be claimed to have caused the action of another actor B, when this action had been the choice of the latter actor anyhow. Nor could this claim be rejected.20 In terms of preferences, A has to deviate in his action from his own preferences towards the preferred outcome of B. Otherwise his action cannot be considered to be caused by B. Otherwise, to exercise power would be a senseless enterprise: “… power is desired because it gives its possessor the opportunity to change outcomes from what they would otherwise have been, in the direction that the possessor wishes.”21

A final distinction has to be drawn between power and luck. Even if an action deviates from the preferred outcome of actor A towards the preferred outcome of actor B, we cannot confidently claim, that A’s action have been caused by B’s preferences. Leaving measurement errors and a change of A’s preference (“second thoughts”) aside, the possibility remains that A’s action was actually caused by C’s preference, which happens to coincide with the preference of B. “If an individual’s power is defined as his ability to change outcomes from what they would otherwise have been in the direction he desires, the likelihood that outcomes will correspond to his desires does not depend solely on his power. It also depends on what the outcome would have been in the absence of his intervention. This is what I shall call luck. Someone with a little power (or no power) but a lot of luck may thus consistently obtain more of the outcomes he wants than someone who has a lot of power but only a little luck.”22 When two actors would benefit from a change of direction in another actors action, we cannot tell for certain, whether or not only one of them is powerful, the other being simple lucky. An actor might simple occupy a privileged position.23 However, when a certain actor consistently benefits in different situations, we can presume with some confidence, that he is not just lucky all the time, but powerful.

20 March 1955: 438-41
21 Barry 1991: 272
22 Barry 1991: 272
23 cf. Lukes 1974
2.2. Systems of Interest Intermediation

2.2.1. Pluralism

At the core of the pluralist school of thought lays the notion of freely competing groups, who are seeking to influence public policy. As used here ‘interest group’ refers to any group that, on the basis of one or more shared attitudes, makes certain claims upon other groups in the society for the establishment, maintenance, or enhancement of forms of behavior that are implied by the shared attitudes. The state is merely a neutral arena of this voluntary group competition. “Governmental decisions are the resultant of effective access by various interest….” Power is part of “an inextricable ‘process of bargaining’ between numerous groups representing different interests.” This process is characterized by:

- multiple and overlapping memberships
- potential groups
- a multiplicity of access points to state institutions

The idea of multiple and overlapping memberships refers to the diversity of any individual’s interests, which causes his involvement in a variety of different groups. This provides a balance against exclusively single-minded movements, as each group has to acknowledge and possibly incorporate the considerations of other groups, because its own members are also part of these other groups. “It is the competing claims of other groups within a given interest group that threaten its cohesion and force it to reconcile its claims with those of other groups active on the political scene.” But not only the organized individuals exert pressure. Latent interests also have influence due to their potential to organize. This possibility has to be considered by each group, whose activities might stir up new groups. The interest of the “silent majority”, the rules of the game, are thus also represented in each organized group. The interests of unorganized, latent groups (potential groups) are also respected in a plural system: “Sometimes it may be this possibility of organization that alone gives the potential group a minimum of influence in the

25 Truman 1951: 33
28 Truman 1951: 510 (original emphasis)
In pluralist systems the capacity to organize is widely dispersed. So is power.

The third characteristic of pluralist systems is the existence of a multitude of access points to government, “scattered throughout the structure,” which allow interest groups to make claims upon public policies. Especially federal and decentralized political systems offer a number of these access points. The access points to government are not organized in a stable hierarchy, because the importance of different branches of government or political parties vary over time in their impact on public policies. Thus, having only access to a certain part of the governmental structure does not render an interest group to be either decisive or irrelevant at all times. “Within limits, therefore, organized interest groups, gravitating toward responsive points of decision, may play one segment of the structure against another as circumstances and strategic considerations permit. The total pattern of government over a period of time thus presents a protean complex of crisscrossing relationships that change in strength and direction with alterations in the power and standing of interests, organized and unorganised.”

Some crucial assumptions of the pluralist writing have to be noted:
- freedom of speech, assembly and coalition have to be respected
- uncensored mass communication and/or an undistorted mass media (freedom of press) have to be in place
- overlapping memberships must cut across social stratification, there can be no group completely isolated from the rest of society

2.2.1.1. Pluralism and Political Equality

Critics of pluralist writing have commonly claimed, that pluralism implicitly assumes, that the capacity to organize and thus to be influential is equally distributed in society - an assumption which these critics believed to be unrealistic. Actually, this claim has not been made in pluralist theory. “Most pluralist agree that the power of a

29 Truman 1951: 511, cf. 31 and 510-6
30 Jordan 1990
32 Truman 1951: 508; cf. regarding Dahl Jordan 1990: 288
34 Baumgartner/Leech 1998: 54-58; Ellis 2001: 11518; Held 1996: 213
pressure group depends on the level of its resources and variation in resources often lead to one group having greater access than others.”

Truman, for example, noted that organizations have a varying amount of resources at their command. Relevant sources of influence are in his view:

- the social position of the group
- the extent to which it is organized
- skill and qualification of leaders
- the size of organization
- the finances of organization
- the degree of mobilization
- the level of legitimacy

Access further depends on the structure of the decision-making process. Lindblom (and Lowi) have pointed out the privileged position of business interests: Because the countervailing powers are not sufficient in force, government depends on business and certain issues are not discussed as part of the political agenda, business interests prevail. Power is widely, but not equally dispersed.

2.2.1.2. Pluralism and the Logic of Collective Action

The crucial capacity to organize depends on the size of the group, as Mancur Olson has demonstrated. “… unless the number of individuals in a group is quite small, or unless there is some coercion or some other special device to make individuals act in their common interest, rational, self-interested individuals will not act to achieve their common or group interests.” The reasoning behind this argument is, that self-interested, rational actors will only take on (part of) the costs of achieving a public good, if their contribution has a noticeable effect. Public goods are goods which, once provided, cannot be excluded from consumption by anybody. Because individuals cannot be barred from the consumption of public goods, their contribution depends on the condition, that their effort is necessary to provide the public good at all. In small groups the likelihood is higher, that a member of the group receives a portion of the total benefits exceeding the total costs of delivering the good. Therefore, small groups are privileged, because they will be more likely to enjoy an

37 Martin 1990: 304; cf. Truman 1951: 522
40 Olson 1965: 2, cf. 122-3
optimal supply of public goods. Medium (intermediate) or large (latent) groups are less likely to achieve the delivery of a public goods, because the portion of total benefits that every individual receives decreases, as does the effect of each contribution, while the initial costs of organization become larger, when the group size increases. In small groups it is also easily possible to identify individuals, who try to benefit from the public good while not accepting its share of the costs (free-riders). Therefore, the group can force these individuals to comply. 41 Any specialized interest has, therefore, an advantage over large groups as these will potentially remain only latent. „The distinction between the privileged and intermediate groups, on the one hand, and the latent group, on the other, also damages the pluralistic view that any outrageous demands of one pressure group will be counterbalanced by the demands of other groups, so that the outcome will be reasonably just and satisfactory.„42 Actually, the few will exploit the many.43 Because business is divided into small sectors, each industry-specific business association has to be considered as a privileged group. „The high degree of organization of business interests, and the power of these business interests, must be due in large part to the fact that the business community is divided into a series of (generally oligopolistic) ‘industries’, each of which contains only a fairly small number of firms. Because the number of firms in each industry is often no more than would compromise a ‘privileged’ group, and seldom more than what would compromise an ‘intermediate’ group, it follows that these industries will be normally small enough to organize voluntarily to provide themselves with an active lobby – with the political power that ‘naturally and necessarily’ flows to those that control the business and property of the country.„44 The same, however, is not valid for general business associations, which – due to its size – are often latent groups, struggling with the same problems of mobilizations as other societal groups.45

41 Olson 1965: 48; cf. Reisman 1990: 149-64
42 Olson 1965: 126-7
43 McFarland 1987: 130-3
2.2.2. Corporatism

Philippe Schmitter’s Article „Still the century of corporatism?“, published in 1974, marks the onset of a by now “inflationary” literature on interest intermediation based on the concept of corporatism. This concept has been (re-)invented by Schmitter as an “explicit alternative to the paradigm of interest politics which has heretofore completely dominated the discipline of the North American political science: pluralism.” In Schmitter’s view pluralism and corporatism have a number of common assumptions. To him both presume, that the representation via formal associations is gaining strength compared to the established territorial and partisan channels. This trend is facilitated by an increasing differentiation and interest diversity of the modern society, the increasing importance of specialized expertise and growing state intervention. However, turning to the remedies of the problems caused by these developments pluralism and corporatism make different offers: “The former suggests spontaneous formation, numerical proliferation, horizontal extension and competitive interaction; the latter advocate controlled emergence, quantitative limitation, vertical stratification and complementary interdependence. Pluralists place their faith in the shifting balance of mechanically intersecting forces; corporatists appeal to the functional adjustment of an organically interdependent whole.”

Schmitter went on to differentiate between societal and state corporatism, depending on the environment in which the respective system of interest intermediation is located. While societal corporatism can be bound in open, democratic societies, state corporatism is due to a strong, centralized state system. While Schmitter has been arguing for a renewal of corporatist theory with the background of regional studies in Latin America, Gerhard Lehmbruch independently focused at the same time on corporatist structures in Austria. Lehmbruch also points out to the bargaining between state and interests groups, employed for “stabilizing and steering highly developed capitalist economies”. These consultations are characterized by a high degree of cooperation among the interest groups, who,

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49 Schmitter 1974: 97
50 Schmitter 1974: 103-6; Schmitter 1979: 66-8; a similar distinction has been made between liberal and authoritarian corporatism (Lehmbruch 1984: 61 and Lehmbruch 1979: 53). In the remainder of the text I will refer to liberal, societal (neo-) corporatism unless otherwise stated. For the role of the state cf. Winkler 1977
51 Lehmbruch 1979: 52
although having opposing interests, are aware of their mutual interdependence.\textsuperscript{52} Thus, corporatism serves to “reconcile the conflicting interests of highly cohesive groups which can not be adjusted by electoral competition and/or majoritarian devices.”\textsuperscript{53} As Schmitter, Lehmburch emphasizes that the incorporation is limited to umbrella organizations, who are capable of representing their respective constituency\textsuperscript{54}: “Bargaining power is concentrated in the hands of top level leadership, a sort of interlocking directorate of the competing groups. While pragmatic consensus among elites is rather highly developed, there is little communication among lower levels of the groups. An essential condition is strong vertical integration of each group.”\textsuperscript{55} In a “fully ‘corporatized’ polity” hierarchically organized and non-competitive interest organizations, representing “antagonistic interests”, are co-opted into governmental decision-making.\textsuperscript{56} “It is only when specially organized intermediaries are involved – only when the process of deliberation effectively empowers them to represent the collective interests of some group and to take subsequent responsibility for any decisions made – that one can speak of corporatism \textit{strictu sensu}. It is not the same thing as mere consultation and it is not open to participation by everyone.”\textsuperscript{57}

Analytically two variants of corporatism can be distinguished. Corporatism can either refer to the “interest system”/“mode of interest representation”\textsuperscript{58} or “patterns of policy-formation”\textsuperscript{59}, which allow for “concertation”\textsuperscript{60}: “In the former sense, affected interests, however organized, become incorporated within the policy process as recognized, indispensable negotiators and are made co-responsible (and occasionally completely responsible) for the implementation of policy decisions, which then take on a characteristically semi-public or para-state quality. In the latter, the affected interests remain essentially outside the policy process, as consultants or combatants on the issues involved, and the implementation takes place exclusively

\textsuperscript{52} Lehmburch 1979: 53-5  
\textsuperscript{53} Lehmburch 1979: 53; cf. Panitch 1979  
\textsuperscript{54} Schmitter/Streeck 1999: 19  
\textsuperscript{55} Lehmburch 1979: 59; cf. Lehmburch 1982: 24  
\textsuperscript{56} Lehmburch 1982: 5-6; Lehmburch 1984: 62  
\textsuperscript{57} Schmitter 1989: 63 (original emphasis); cf. Williamson 1989: 76-84  
\textsuperscript{58} Schmitter 1979: 65; cf. Williamsoon 1989: 99-118  
\textsuperscript{59} Lehmburch 1979: 150  
\textsuperscript{60} Lehmburch 1984; cf. Cox 1988
under the responsibility of public authorities, however much they may be influenced by the autonomous actions of organized interests in the course of their activities."  
In the ideal-type “corporatist concertation” these two dimensions collapse:
-Interest groups are involved in the decision-making process of the state
-The involved parties, representing the diametrically opposed interests who are mainly affected, try to build a consensus in tripartite bargaining
-The implementation of the policy agreed upon is (partly) carried out by interest groups

While Schmitter emphasized the institutional characteristics of the interest system, which would allow private actors to implement public policy, Lehmbruch has focused on the goal these arrangements serve and the necessary cooperation among the groups involved.  
Rather than being mutually exclusive, these two patterns should have a tendency to occur together, as they are mutually reinforcing.  
"Corporatism has two conceptually distinct meanings. The first refers to an interest group system in which groups are organized into national, specialized, hierarchical, and monopolistic peak associations. The second refers to the incorporation of interest groups into the process of policy formation... Empirically... they tend to occur together because corporatism in the narrow sense is almost a necessary condition for concertation." 

While most subsequent studies on corporatism, following Lehmbruch’s initial research interest, have dealt exclusively with wage bargaining and macro-economic coordination, the theoretical construct of corporatism is not limited to any special policy field.  
In the early literature on corporatist arrangements the emphasis has clearly been on the macro-level of national political systems.  
“Corporatist arrangements have been observed mostly in industrial relations, be it on the national level (macrocorporatism) or on the level of industries (mesocorporatism). But they are also found in other policy domains, such as the social security system or agricultural policy (sectoral corporatism)… As a pattern of policy formation, corporatism was originally tantamount to macro-corporatism, defined as an interorganizational

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62 Lehmbruch 1984: 62  
63 Lehmbruch 1982: 8; Lehmbruch 1984: 62; Schmitter/Grote 1997: 3-5; Schmitter/Streeck 1999  
64 Schmitter 1982: 264; Schmitter 1989: 65; Lehmbruch 1982: 8  
65 Lijphart 1999: 171  
arrangement in which the national peak associations of business and labour coordinate their autonomous policies through central-level bargaining, with governments being often (at least informally) involved in tripartite ‘social pacts’\textsuperscript{68}

“The state plays an active role\textsuperscript{69} in corporatist theory. The participation of interest groups in public policy making needs to be “recognized or licenced”\textsuperscript{70} by the state. “Interest associations will not attain the status of monopoly representatives or form comprehensive hierarchies of sectoral or class co-ordination without some degree of official recognition, if not encouragement. Nor will they become regular, integral participants in policy-making or acquire direct responsibilities for policy implementation without the tacit agreement, if not the active promotion, of public officials.”\textsuperscript{71} The interest groups are trapped in the “logic of influence”. In order to gain privileged access to the state and possibly even quasi-public status, that is in order to profit from the power of the state, they have to conform to a certain degree to the wants and needs of the state. At the same time, however, they have to be able to keep the support of their constituency according to the “logic of membership”.\textsuperscript{72}

Corporatist writing presumes a strategic interdependence, which forces the antagonistic interests to negotiate a common solution to a given problem. “... the relevant interlocutors must be in a situation of mutual deterrence, each sufficiently capable of organised collective action to prevent the other from realising its interests directly through social control and/or economic exploitation, and each sufficiently incapable of unilateral manipulation of public authority to impose its interests indirectly through the state.”\textsuperscript{73} Through its structural arrangement, that is by imposing tripartite negotiations, the state has a levelling impact on the “natural” pluralist setting, in which producer interests would be dominant: “... corporatism represents an attempt ... to at least offset in some measure the imbalance that would otherwise prevail.”\textsuperscript{74} Due to the interdependence linking the interests of all three parties involved, corporatist arrangements should be to the benefit of all actors.\textsuperscript{75}

\textsuperscript{68}Lehmbruch 2001: 2184
\textsuperscript{69}Molina/Rhodes 2002: 316; cf. Heisler 1979 : 286
\textsuperscript{73}Schmitter 1985: 35-6; cf. Molina/Rhodes 2002: 314-9
\textsuperscript{74}Williamson 1989: 205; cf. Held 1996: 226-31
\textsuperscript{75}Siaroff 1999: 177
2.2.3. Comparing Pluralism and Corporatism

Pluralism and Corporatism can be portrayed as end poles of a continuum characterising systems of interest intermedication.\textsuperscript{76} They can be distinguished on (at least) two dimensions:

- the role interest groups play in public policy making (state – interest group relations)
- the structure of the interest group system\textsuperscript{77}

In pluralism all interest groups are very likely to have access to the state apparatus, because state – interest groups relations are not structured. Because interest groups are not actually incorporated into public policy making and as they encounter a weak state, they are unrestricted and can take on any possible policy stance. Therefore, the interest group system is characterized by a multitude of competing interest groups occupying manifold positions. It is biased towards producer interests.

<table>
<thead>
<tr>
<th>Pluralism</th>
<th>Corporatism</th>
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<tbody>
<tr>
<td>Multiple interest groups</td>
<td>Limited number of interest groups</td>
</tr>
<tr>
<td>Competitive, non-hierarchically ordered</td>
<td>Noncompetitive, hierarchically ordered</td>
</tr>
<tr>
<td>No privileged access/Independence from state</td>
<td>Privileged access/Partly founded by state</td>
</tr>
<tr>
<td>No monopoly of representation</td>
<td>Monopoly of Representation</td>
</tr>
<tr>
<td>=Interest representation</td>
<td>=Interest intermediation</td>
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Corporatism depicts the relationship between state and interest groups as highly structured. Access is limited (to peak associations) and balanced (across consumer and producer interests). The state has a much stronger role: In order to gain a privileged position, interest groups are restricted in voicing extreme policy positions. In the ideal-type corporatist concertation (tripatism) only peak associations representing the two antagonistics interests are involved.\textsuperscript{78}

Thus, a pluralist system of interest intermediation should have:
- a higher number of interest groups involved
- a higher variety of positions articulated
- less balanced influence (privileging producer interests)

\textsuperscript{76} Martin 1983: 99; cf. Crouch 1983: 457
\textsuperscript{78} Cawson 1986: 27-38; Williamson 1989: 204-224
2.3.Policy fields

The literature on policy networks/communities has stressed the meso or sectoral level of politics, as opposed to the macro or national level: Within a given policy field interested parties form a community, the boundaries of which are defined by the interests these actors have. Besides the distinction between different political systems a further horizontal differentiation between various policy fields has to be made, as these might differ regarding the institutional setting, the actors involved and the nature of the issue at hand. The “sectorisation of policy-making” needs to be acknowledged, “and the cross-sectoral can be complemented by the cross-national comparison.”

According to Lowi four types of policy or policy arenas need to be distinguished. “Each arena tends to develop its own characteristic political structure, political process, elites and group relations.” These issue areas are constituted by the different ways the contested political good can be parcelled out. Distributive policies are marked by their pluralist character, as the political good can be disaggregated freely among competing groups, while in regulatory politics, the political good cannot be disaggregated. Thus, distributive policies can be characterized as a positive-sum game, whereas regulatory politics are a zero-sum game: “Regulatory policies are distinguishable from distributive in that in the short run the regulatory decision involves a direct choice as to who will be indulged and who deprived.” This is even more so in redistributive policies, only that the number of parties involved – which has already declined from distributive to regulatory policies – is basically based upon the socio-economic cleavage. While in regulatory politics, the “lines of perceived common impact are the basic sectors of the economy” in redistributive policies the “categories of impact are much broader, approaching social classes”. The fourth policy type is constitutional policy. “The Lowi scheme, however, has more admirers

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80 Richardson/Gustafsson/Jordan 1982: 3; cf. McFarland 1987: 130-3
81 Lehbruch 1982: 7; cf. Freeman 1985
82 Lowi 1972: 300; for the following cf. Peters/Doughtie/McCulloch 1977 330-3
83 Lowi 1964: 689
84 Zimmermann 1973: 1206
85 Lowi 1964: 690
than followers, and it seems difficult to use his categories in practice." But its emphasis on different structures of participants (depending on the type of policy) also plays a dominant role in another prominent categorization of policy fields.

“Groups need government to deliver authoritative decisions and governmental policy makers need groups to facilitate the formulation of a workable and effective policy." Because of this interdependence the borders between state and society have become blurred, policy communities and issue networks evolved linking the formal decision-making bodies of the state and the societal interest groups. “In actual fact, policy proposals are usually produced through a “nexus” of horizontal negotiations among lower-level units within and across ministries and with outside actors in parliament, in political parties, as well as in interest organizations." Functional differentiation, a growing complexity and scope of public policies and overcrowded policy arenas led to the need of state actors for stable relationships to societal groups in order to orchestrate collective problem-solving. This shift from hierarchical control to horizontal coordination yields lower costs for policy implementation in return for higher costs in policy formulation. It is frequently encountered in complex, technical topics involving highly interdependent issues.

“Within a policy community the groups involved in a policy sector are stable, there is a degree of dependency between the interests and the department, and access to the community is closed, limiting the role of other groups and Parliament in policy-making." The notion of policy communities is based on the prior observation of “iron triangles” between interest group, bureaucracy and legislative committees, which segmented decision-making in a number of different arenas. “It would be too costly (in terms of effort) for all groups to intervene in all areas, or even randomly, and a pattern of probable participants in an areas develops.” The number of participants is limited, as further groups would only complicate matters: “The government does not want the continual entrance of new groups into the policy

86 Lowi 1964: 691
88 Maloney/Jordan/McLaughlin 1994: 36
89 Scharpf 1997: 198
91 Smith 1990: 312; cf. Richardson 1999: 69
92 Jordan 1981
process because it increases conflict, results in extra demands on government and so producing policy becomes more difficult. It is much better for a department to enter into a regularized relationship with a group where only certain demands will be made and the groups can assist in developing better policy.\textsuperscript{94} Thus, policy community are a source of policy stability due to the exclusiveness of access.\textsuperscript{95}

Just the opposite, issue networks are characterized by its openness and the change they induce to policies.\textsuperscript{96} “Increasingly, it is through networks of people who regard each other as knowledgeable, or at least as needing to be answered, that public policy issues tend to be refined, evidence debated, and alternative options worked out – though rarely in any controlled, well-organized way.”\textsuperscript{97} Whereas policy community formed closed arenas, limiting the control of public policies to few participants in a predictable way, issue networks work in less predictable ways as they are not structured through a restricted access.\textsuperscript{98}

Interest groups, who are included in a policy community, have an incentive to keep their community closed. By taking part in public policy decision-making they are capable of conferring benefits to their constituents. The more groups participate, however, the harder it will be to protect these “rents”.\textsuperscript{99} “In short, the typical organization for collective action within a society will, at least if it represents only a narrow segment of the society, have little or no incentive to make any significant sacrifices in the interest of the society; it can best serve its members’ interests by striving to seize a larger share of a society’s production for them.”\textsuperscript{100} Policies, whose distributional consequences are known, should be more inclined to the closing off in policy communities. Policy fields, whose distributional consequences are unknown and where no established policy community exists, should be characterized by (emerging, unstable) issue networks.\textsuperscript{101}

\textsuperscript{93} Jordan 1981: 117
\textsuperscript{94} Smith 1990: 312-3; cf. Richardson 1999: 69-71
\textsuperscript{95} Maloney/Jordan/McLaughlin 1994: 19; Richardson 1999: 67-8
\textsuperscript{96} Dowding 1995
\textsuperscript{97} Heclo 1978: 49
\textsuperscript{98} Richardson 1999: 73-5
\textsuperscript{99} Tollison 1997
\textsuperscript{100} Olson 1982: 44; cf. Mitchel/Munger 1991: 515-8 and 525-6
2.4. Resources

Resources are defined as means, which are under the control of one actor while at the same time being wanted by others. “Thus the value of a resource lies in what an actor who controls it can gain from exchanging it, and the interest a resource holds for an actor lies in the potential it has for affecting his satisfaction.”\(^{102}\) Because each actor thrives to maximize his satisfaction, resources of lesser value are exchanged for resources of higher value. This is possible, because actors vary in their evaluation of different resources and their control over resources.\(^{103}\)

Power, “political money” has been considered as a resource to be used by his possessor to achieve his goals: “The more political power or money he has, the more he can get what he wants in the political or economic realm. Each, in its realm, is the resource which gives control of events or goods.”\(^{104}\)

But what are the sources of power?

Economic theory has modelled influence as an exchange relationship between societal pressure groups and state institutions: “The ‘goods’ supplied by politicians and bureaucrats are certain government policies (legislation, regulation, transfers, public goods). The interest groups are the demanders of these goods, their ‘price’ being the amount of pressure by the groups directed towards the polity.”\(^{105}\) This pressure has been frequently termed as campaign contributions: “The single activity by interest groups that is most intensively studied is contributing to the political campaigns of parties and candidates.”\(^{106}\) Why campaign spending should lead to the change of politician’s positions, however, is left implicit.\(^{107}\)

Another stream in the literature has focused on information and the role of interest groups in elections. “…typical citizens are rationally ignorant about public affairs.”\(^{108}\) The costs of obtaining sufficient information to make a political judgment are normally to high for ordinary citizens. Only persons with a special interest will bear this burden.

\(^{101}\) cf. König/Schulz 2000: 658
\(^{102}\) Coleman 1990: 133
\(^{103}\) cf. Coleman 1990: 37-40
\(^{104}\) Coleman 1986: 168; cf. Goldman 1986
\(^{105}\) Potters/van Winden 1990: 62
\(^{108}\) Olson 1982: 26 (original emphasis)
To make an informed decision, therefore, most voters will rely on information provided by interest groups. 109 “With perfectly informed citizens, elected officials would not be subject to the blandishment of lobbyists, since the constituents would then know if their interests were betrayed and defeat the unfaithful representative at the next election. Just as lobbies provide collective goods to special-interest groups, so their effectiveness is explained by the imperfect knowledge of citizens, and this in turn is due mainly to the fact that information and calculation about collective goods is also a collective good.” 110 Interest groups can use informational asymmetries in order to mobilize public support.

A special source of interest group power has been identified “in the state’s need for the expert advice in the formation of policy, for their acquiescence or voluntary agreement to administer state policies, and for their approval and legitimation of state policies in the eyes of their members.” 111 The actors, who possess the authority to make binding decisions, are frequently lacking adequate information to make their decision. Two kinds of relevant information needs to be distinguished: Interest groups can provide bureaucracies with information on technical issue regarding the implementation of a certain policy and they can also provide information regarding the public support (or legitimation) a certain policy will enjoy 112. One of the main resources of interest groups is, therefore, information: “Lobbying is essentially an informational activity… Legislators typically make policy decisions under uncertainty, regarding either their political consequences … or their technical consequences… Information is thus valuable, and those possessing it are in a position to influence legislative decision. Interest groups are frequently relatively well informed about the particular issues with which they are concerned.” 113

Interest groups can use resources to influence public policy. 114 Relevant resources include the mobilization of public support, financial means and information. 115 The more resources an interest group controls, the more influence it can exercise. 116

110 Olson 1982: 26; cf. Lohmann 1998
111 Panitch citing Beer 1979: 137
112 Laumann/Knoke 1987: 150; cf. Crombez 2002
115 Grossman/Helpman 2001: cf. 21-38
3. Method and empirical Background

3.1. Data and Hypotheses

In order to answer the question posed, I will use descriptive statistics, analysis of covariance and multiple regression analysis. The data used are from the research project “The Relevance of Threats and Promises in EU Decision making” (König/Schneider).

On the national positions for 15 Commission proposals (117 issues) in Germany, Great Britain, Finland and The Netherlands the dataset contains the following information:
- the position of the leading ministry (ip)
- the final national position (np)
- the position of the actors involved (pos)
- the type of the respective actor
- the resources of the actors involved (cap, info)
- the overall value of the issue for the respective actor (ov)
- the policy field of the proposal

My analysis will proceed on the issue level.

Resources are measured by two different variables: The overall capabilities (cap) of an actor and the level of relevant information available to an actor is estimated. Because the first variable is the broader category, I will primarily focus on capabilities. Theoretically, the effect of resources on influence should be curvilinear. An actor, who is already powerful, does not gain so much with an one unit increase in his resources. The effect of an increase in resources on influence should be stronger for actors with a low level of resources. Therefore, I will use an logarithmic transformation of the respective variables.
Nine policy fields have been coded. I will only distinguish between old and new policy fields. New policy fields encompass competences, that the European Union did not possess before Maastricht\textsuperscript{117}:

- agriculture (old)
- environment (new)
- competition (old)
- consumer (new)
- internal market (old)
- finances (old)
- judiciary (new)
- labour (new)
- taxation (old)

In accordance with the Olsonian distinction between producer and interest groups, differentiating for general (large, heterogenous) and specialized (small, homogenous) groups, I have formed the following actor groups:

- Leading Ministry (ldm)
- Other Ministries (om)
- Other state actors (agencies, agc)
- Labour, consumer, environment - general (lce_gen)
- Labour, consumer, environment - specialized (lce_spc)
- Employer, industry, agriculture – general (eia_gen)
- Employer, industry, agriculture – specialized (eia_spc)
- Other societal interests (professional associations (oth))

The following hypotheses will be investigated:

H\textsubscript{1} : Interest groups do have influence on national positions
H\textsubscript{2} : The distribution of interest group influence does not depend on the system of interest intermediation
H\textsubscript{3} : The distribution of interest group influence does not depend on the policy field
H\textsubscript{4} : The distribution of interest group influence does depend on the distribution of Resources: More resources lead to more influence

\textsuperscript{117} König 1995; Pollack 1994
3.2. Measuring Influence

Standard methods to measure power have been:
- decisional (preferences – outcome)
- reputational (expert assessment)
- positional
- based on resources

Reputational measures might be biased by the type of issues the respective actor considers to be relevant. An actor might rank high within the expert assessment, because he was perceived to be influential on a few issues, which the expert considers to be important. The actor himself might nevertheless consider himself to be quite helpless in the face of decisions, which are important to him. Also, it is biased towards spectacular events.

Positional measures differentiate across positions, assuming that formal authority and actual power are closely interconnected. In our cases, however, our primary focus is on interest groups, which have no or equal formal authority.

Measures based on resources assume that the possession of resources translates into influence. This proposition is to be tested, however.

The most reliable of these measurement approaches is the decisional one, linking preferences to actual outcomes. In an uni-dimensional policy space with symmetrical preferences, influence can be approximated by the absolute utility change for a certain actor. When a decision is changed, moving the outcome towards his position, his utility increases. Just the opposite, when the outcome moves away from his position, his utility decreases. When there is no change in the decision, his utility remains unchanged as well. Therefore, the absolute utility change can be calculated by subtracting the distance between the final outcome and the position of the actor from the initial distance between the decision and the position of the actor.

If we assume, that an actor always tries to maximize his utility, then an increase in utility might denote successful influence. In our case the hypothetical national

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position (np*), the final national position (np) and the position of the actor (pos) will be used to calculate the absolute utility change.

Some caveats of this method need to be noted, however:
-it is an absolute measure, neglecting differences in the initial distances
-it does not take other actors into account
-it is not weighted to differentiate for different overall values attributed to the issue at hand

Using an absolute measure, biases the results against actors, who are close to the outcome from the very beginning. They can not get high values on an absolute measure. However, a relative measure, normalizing the absolute utility change by the initial distance, would not be symmetrical. While the highest positive value would be unity, this is not true for negative values. In the case of utility loss the value is only restricted by the end of the scale.

An actor might simply be lucky, occupying a position which is close to the position of a very powerful actor, while being neglectible himself. Actors have similar interests, when their positions are located on the same side of the initial position. Thus, they want a change in the outcome into the same direction. In order to control for this effect, we can additionally consider
-the distance to the mean position of the group, having similar interests
-the proportion of actors with similar interests
-the homogeneity of the preferences of the group

From our discussion of power as a dispositional concept, it has already become apparent, that the absence of an exercise of power, does not prove, that a certain actor is not powerful. That is, that he could abstain from exercising power and influence the outcome of a certain decision. This notion is captured by the concept of salience. An actor will only use his power potential, when the issue at hand is worthwhile to him. “If we wish to discover the power of various groups it is wrong, therefore, to consider the apparently most important issues, and to investigate the distribution of power [who won, who lost] on these issues… Rather we should discover which are the important outcomes for each group, and to what extent a
group, or a member of that group, has power over the outcomes of most importance to it."  

In the following analysis I will eventually control for the effect of salience. It has to be noted, however, that the data set only includes actors, who voice an opinion. Actors with extremely low salience are missing by design. This problem can be linked to another on: the problem of anticipation. The change in the outcome might be due to the position of an overwhelmingly powerful actor, who is not particularly interested in the issue at hand. Nevertheless, he might change the outcome, because other actors orient their action on his (presumed) preferences. Furthermore, the power to suppress issues complete can not be assessed by this method.

Therefore, we can only approximate the observable distribution of influence and draw conclusion on the distribution of power, on which it is based.

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119 Dahl cited in Morris 1987: 149 (original emphasis)
3.3. Categorizing Systems of Interest Intermediation

When looking for different effects of systems of interest intermediation on decision processes, we need to make sure that the cases, which are subject to our study, actually differ regarding their systems of interest intermediation.

In order to assure this, we need an external source to establish these differences. There are a number of comparative studies on systems of interest intermediation. Most of them are actually measuring tripartism in the field of wage bargaining and some of them are only based on subjective categorizations. They, nevertheless, represent the accumulated wisdom of scholars, working in this field, and will, therefore, serve as the categorization of interest intermediation systems. Furthermore, some scholars have found a relationship between corporatism and a consensual political system, linking the narrow focus on systems of interest intermediation or even tripartism with the political system as a whole.

In a survey of 23 studies on corporatism the following agreed corporatist ranking for a total of 15 countries has been reached:

Table 3.3.1: Corporatism - Ranking

<table>
<thead>
<tr>
<th>Country and total ranking</th>
<th>Mean Score on Corporatism-Indices</th>
<th>Standard Deviation</th>
<th>Number of Studies used</th>
</tr>
</thead>
<tbody>
<tr>
<td>Netherlands</td>
<td>[4] 4.000</td>
<td>0.989</td>
<td>23</td>
</tr>
<tr>
<td>Germany (West)</td>
<td>[6] 3.543</td>
<td>0.940</td>
<td>23</td>
</tr>
<tr>
<td>Finland</td>
<td>[7] 3.295</td>
<td>1.043</td>
<td>22</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>[12] 1.477</td>
<td>0.818</td>
<td>23</td>
</tr>
</tbody>
</table>

The Netherlands, Germany and Finland are considered to be moderately or strongly corporatist, whereas the United Kingdom is considered to be weakly or only somewhat corporatist. As we can see from the standard deviation, there is no agreement on the exact ranking of the first group. Therefore I will use the United Kingdom as the pluralist case, whereas the other three countries should be

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120 Kenworthy 2000; cf. Keman/Pennings 1995
122 Siaroff 1999
corporatist. As the measurement itself will be of a relative nature and the claim is related to a comparison between the pluralist and the corporatist “group”, the high standard deviations between pluralist United Kingdom and corporatist Finland are not relevant. In our context, the only question is, whether or not the four countries differ in their system of interest intermediation.

If the “systemic” claim is correct, then:

- The number of interest groups involved should be smaller in the Netherlands, Finland and Germany than in the United Kingdom.
- The difference between the number of diffuse interests and the number of business interests involved should be smaller in the Netherlands, Germany and Finland than in the United Kingdom.
- The influence of the involved interest groups should be larger in the Netherlands, Germany and Finland than in the United Kingdom.
- The influence of the involved interest groups should be more balanced across diffuse and business interests in the Netherlands, Germany and Finland than in the United Kingdom.
- The position of the involved interest groups should be closer to the initial position of the government in the Netherlands, Germany and Finland than in the United Kingdom.

In our context, it is only important to note, that there should be differences between the four countries, who are subject to this study, even when only focusing on the system of interest intermediation, neglecting the political system as a whole.
3.4. The Formulation of National Positions: an empirical Perspective

While there are differences in the formal decision-making process leading to the national positions on EU policies in the four member states, the structure of the process still reveals a similar basic pattern\footnote{The following is based on König/Pöter 2001 and König/Schneider 2001; cf. Martin 200 and Pahre 1997}:

1. The proposal (of the Commission) is forwarded to a ministry, which is responsible for the further processing (leading ministry).
2. The leading ministry formulates an initial position.
3. Other ministries and the Parliament as well as interest groups are consulted.
4. A national position is agreed upon.

In the United Kingdom Commission proposals are forwarded to the leading ministry by the Foreign and Common Wealth Office. Inter-ministerial coordination is organized within the European Questions Committee, after which interest group might be consulted. Then both Houses of the Parliament are involved, which in turn may consult outside experts. Because of the limited time available to discussion and the limited expertise, public hearings with outside experts are a common instrument. Parliament has no veto power and can only exercise political pressure.\footnote{Weber-Panariello 1995: 65-6}

In Germany the Ministry of Economics forwards the Commission proposals to the leading ministry and to both Chambers of the Parliament. When the competences of the states (Länder) are touched, the second chamber (Bundesrat) might decide by a 2/3-majority on a statement, which is binding for the government.\footnote{Weber-Panariello 1995: 293-6; because of the high threshold and the restrictive application of this right, I will neglect it in my analysis} Interest groups mostly use informal contacts and indirect lobbying to access the governmental decision-making process.

In Finland the Ministry of Foreign Affairs usually makes the decision regarding the leading ministry. In difficult cases this is done in an interministerial committee. When drafting the initial position the leading ministry consults other ministries and can consult interest groups. In Finland parliament has a veto power on the national position in case of directives. Otherwise, in case of disagreement government only
has to justify its position in a memorandum. Again, frequently public hearings involving interest groups are held.

In The Netherlands commission proposals are initially reviewed by the so-called Interministerial Working Group to Assess New Commission Proposals, which consists of representatives of all ministries. The Working Group decides on the leading ministry, which writes the first draft. The cabinet is the “ultimate decision-making unit”\textsuperscript{126}. Parliament is only informed on the governmental decision.

\textsuperscript{126} Hanf/Soetendorp 1998: 40
3.5. Modelling the Decision-making Process

In order to estimate the impact of interest group influence, I will determine first the difference between a hypothetical national position, the theoretically expected position without interest groups, and then calculate the difference between the actual outcome and the hypothetical position relative to the position of the group.

In deciding on national positions regarding EU policies the state has the ultimate authority. An initial proposal (ip) will be formulated by one of the ministries (leading ministry, lm). Afterwards other ministries (om) and the parliament (p) will articulate their position. From a legal perspective, these could now agree on a common position – according to the respective formal decision-making process. Because the opinion of the parliament is not binding in most cases, we need to differentiate between decision-making processes. If the parliament has no formal veto power, I will not incorporate the position of the parliament into the national position. That is, in these cases parliament will be treated like societal interests and other state actors, who have no formal authority (state agencies, agc). When there is no other ministry besides the leading ministry voicing an opinion and the parliament has no formal veto power, the initial national position is the position of the leading ministry. As our previous discussion has shown, differences among ministries are ultimately resolved through a collective decision of the involved ministries. This can be modelled using the median voter theorem. When a decision is made in a uni-dimensional space and by simple majority, with each actor has the same number of votes, the winner will always be the median voter, according to the median voter theorem. The median position is privileged, because the voter occupying the median position is pivotal in forming any possible winning coalition.\footnote{Holcombe 1985: 38-66} Therefore, when there are several ministerial positions, the median position will be the national position. When parliament has a formal veto right, the national position will be the mean between the governmental position, formed by the median of the ministerial positions, and its own. I thereby assume, that the executive forms its position independently from the legislative body.

Furthermore, I assume that interest groups (as well as state actors without formal competences in the decision-making process) have – formally or informally – access to the decision-making process at all times. The initial national position, calculated...
this way, is naturally only hypothetical: It serves as an approximation of the position, which would have been the national position, if there had been no actors besides the ones, who hold formal competences in the decision-making process. In other words, the hypothetical position approximates the initial national position, before interest groups intervened.

As already discussed, I will use the absolute utility change in order to approximate the influence of an actor. This can be calculated by taking the difference between the initial distance to the national position and the distance to the final national position.

**Modelling Influence in the formation of national position**

1. Step – Calculation of (hypothetical) national position (np*)

   |____________________|____|____|__|__________________|
   |p | ip | om₁ | om₂ |
   governmental position  | (Median ip, om₁, om₂)

   ip=initial position (leading ministry)
   om=other ministries
   p=Parliament

   national position (np*)  | (Mean p, governmental position) if Parliament has veto rights

2. Step - Calculation of distance from the position of the respective actor to the initial national position (np*)

   |____________________|____|____|__|__________________|
   |pos₁ | np* | np | pos₂ |
   pos₁=interest groups

   |np*-pos|

3. Step – Calculation of distance from the position of the respective actor to the final national position (np)

   |np-pos|

**Dependent variable**

uch_abs=|np*-pos|-|np-pos| (absolute utility change)
4. Data Analysis

4.1. Descriptive Statistics for Hypothesis 1 (interest groups do have influence)

In order to investigate, whether or not interest groups exercise influence on the formulation of national positions regarding EU-policies, we will first have a look at the change in the national position. If interest groups have an influence, we should observe a change away from the national position.

Actually, we do find movement away from the hypothetical national position. The change in the national position ranges from 0 to 70. However, extreme movements are rare. The mean change is 15.44 (standard deviation: 18.15). In 40% of the cases there is no movement at all. In 50% of the cases there is a movement of less than 10 points. Only 10% of the cases display a movement of more than 45 points.

To put these numbers into perspective, we need to know what the potential movement was. The positions all lie on a scale from 0 to 100. If the hypothetical national position (np*) is 50, then only a movement of 50 is possible. That we do not find values higher than 70 is, therefore, not surprising. But, why do we get values higher than 50? The reason, of course, is that the hypothetical national position is not always located at 50, which would only allow a movement of 50 in both direction. Consider now the cases of it lying on 30 or 70. In both cases the potential movement would be 70, either from 30 up to a 100 or from 70 down to 0. Actually in 24.03% of
the cases the hypothetical national position lies at 0, in 23.36% at 100 and in 14.73% at 50, while in the remaining 37.88% of the cases it is distributed more or less evenly across the range 0 - 100. We can now calculate the maximum movement possible, which is equal to the value of the np*, when np* >50, and equal to 100-np*, when np*<50. The maximum change possible ranges from 55 to 100, with 50% of the cases equal to 100. The mean is at 87.89 points (standard deviation: 15.96).

Having calculated the maximum change possible, we can now determine the actual change in the national position relative to the maximum change possible (in percent):

\[(\text{actual change}/\text{maximum change possible})\times 100\]

The values range from 0 to 100. On average 17.1% of the possible change has occurred (standard deviation: 23.96). In around 40% of the cases no movement has occurred. In 10% of the cases more than 50% of the possible change has actually taken place.

Overall, most of the time there is no change in the national position. But still change does occur, which we could attribute to the influence of interest groups. The mean change is 15.44 (standard deviation: 18.15). The mean spread of ministerial positions around the hypothetical national position, however, is only 8.71 (standard deviation:
16.78). Even the influence of a ministry, which overrules all the other ministries, does not seem to explain the change in the national position, that we observe.

A similar picture emerges, when we are considering the average absolute utility change across actor types. The absolute utility change measures the movement of the national position towards the position of respective actor. A positive value indicates that the national position changes towards the respective actor, whereas negative values occur, when the national position is moving away from the position of the respective actor. The higher the value, the greater is the movement of the national position towards or away from the position of the respective actor. Whereas all state actors lose, nearly all societal actors win.

Not surprisingly considering the prior results, the leading ministry – as well as the other ministries – lose on average. Parliament and state agencies also lose, but the average loss for state agencies has the smallest value. Nearly all the societal groups win: Only the category “other societal groups”, compromising mainly professional associations, displays a negative value. It is interesting to note, that the consumer interests (general and specialized ) on average gain more utility than the producer interests. Whereas the general consumer interests benefit more than the specialized, the opposite pattern emerges within the producer interests. It has to be kept in mind, however, that we are looking at the absolute utility change. That is, actors who are far away from the initial national position can achieve higher absolute values, without being more powerful when taking the initial distance into account.

Taking a closer look at the distribution of the absolute utility change across actor types (see graph 4.1.3.), we can see that all show a large range of values occurring. The state actors have a clear majority of cases displaying negative values, whereas the societal actors, even when excluding the “other” category, do not show such a strong pattern. The producer interests are nearly evenly spread around zero, while the consumer interests are more leaning towards positive values. Other societal interests are, overall, clearly showing negative values.

In sum, we have seen that interest groups do seem to exercise some influence in determining the national position regarding EU-policies.
Graph 4.1.3.: Box plot - Differences in absolute utility change across actor type

Graph 4.1.4.: Average absolute utility change across actor types

State Actors
LDM=leading ministry; OM=other ministry; AGC=state agency; PA=Parliament

Societal Actors
LCE_GEN=general consumer interests; LCE_SPC=special consumer interests; EIA_GEN=general producer interests; EIA_SPC=special producer interests; OTH=others (professional associations, …)
4.2. Descriptive Statistics for Hypothesis 2 (system of interest intermediation)

Is the variance of influence between the actor types greater within or among countries? To answer this question, we will first take a look at the distribution of absolute utility change in the four countries across actor types and then also consider the initial distance between the interest group and the national position.

Concerning the state actors we can observe some differences in the average absolute utility change (see table 4.2.1.). Most notably, the leading ministry loses much more in Germany and Finland than in The Netherlands and Great Britain, while the initial distance is the smallest in Great Britain and the greatest in The Netherlands. Similarly, the other ministries have on average the largest initial distance to the hypothetical national position in The Netherlands. These, however, display the largest utility loss, together with the other ministries in Finland, who had approximately the same initial distance. The differences are, however, not as strong as with the leading ministries. Furthermore, while state agencies, who occupy about the same position relative to the hypothetical national position, lose in Germany, The Netherlands and Great Britain, they win in Finland. The parliaments’ utility change and initial distance shows the greatest differences. First, in the United Kingdom we do not observe any involvement of Parliament. Second, the initial distance in The Netherlands is ten times greater than the initial distance in Finland. Third, the average absolute utility change in Finland is seventeen times the one in Germany.

In sum, the United Kingdom displays the smallest utility loss for its state (executive) actors. The initial distance for the leading ministry is also the smallest, while the other ministries are only second to Germany. In Germany and Finland the ministries have the highest losses. Only in Finland state agencies benefit from the change in the national position, whereas the Parliament clearly loses.

From this first glance, the formation of national position on EU-policies in United Kingdom seems to be dominated by the executive, whereas in Germany and Finland the ministries clearly lose by the change in the national position. In the Netherlands, the leading ministry loses only marginally, while the losses of the other ministries occupies a medium position between the ones in Germany and Finland.
Graph 4.2.1.: Absolute utility change across actor types and countries

Absolute utility change across actor groups in Germany

Absolute utility change across actor groups in Netherlands

Absolute utility change across actor groups in Great Britain

Absolute utility change across actor groups in Finland
Table 4.2.1: Average utility change and average distance to np* across actor types and countries

<table>
<thead>
<tr>
<th>Average utility change</th>
<th>The Netherlands</th>
<th>Germany</th>
<th>Finland</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading ministry</td>
<td>-1.897436 (21.56117)</td>
<td>-10.74074 (22.85841)</td>
<td>-8.958333 (21.56785)</td>
<td>-1.018519 (14.349)</td>
</tr>
<tr>
<td></td>
<td>11.41026 (19.05493)</td>
<td>8.703704 (13.34401)</td>
<td>6.458333 (12.63872)</td>
<td>2.5 (9.830291)</td>
</tr>
<tr>
<td>Other ministry</td>
<td>-15.25 (19.07979)</td>
<td>-13.33333 (15.31826)</td>
<td>-16.875 (24.82438)</td>
<td>-10.27778 (22.99607)</td>
</tr>
<tr>
<td>Agencies</td>
<td>-2.25 (15.9806)</td>
<td>-2.884615 (24.4202)</td>
<td>5.892 (19.3910)</td>
<td>-6.578947 (17.76914)</td>
</tr>
<tr>
<td></td>
<td>20.53571 (28.55596)</td>
<td>22.11538 (25.35006)</td>
<td>20.8928 (32.7180)</td>
<td>26.35965 (38.75308)</td>
</tr>
<tr>
<td>Parliament</td>
<td>-6.571429 (31.89492)</td>
<td>-1.111111 (11.66667)</td>
<td>-17.5 (23.48167)</td>
<td>No observations</td>
</tr>
<tr>
<td></td>
<td>65 (37.30505)</td>
<td>34.44444 (37.45368)</td>
<td>6.5 (10.01388)</td>
<td></td>
</tr>
<tr>
<td>Labour/Consumer/Environ - general</td>
<td>3.809524 (31.57945)</td>
<td>6.5 (25.71748)</td>
<td>No observations</td>
<td>-10.5 (23.47871)</td>
</tr>
<tr>
<td></td>
<td>46.5 (25.39138)</td>
<td>28.09524 (26.9015)</td>
<td></td>
<td>37.5 (45.20785)</td>
</tr>
<tr>
<td></td>
<td>34.58333 (31.72741)</td>
<td>49.16667 (36.04501)</td>
<td>39.0625 (43.48252)</td>
<td>52.91667 (40.8987)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture - general</td>
<td>5.340909 (11.88108)</td>
<td>-6.964286 (20.92045)</td>
<td>-3.846154 (37.27497)</td>
<td>-5208333 (2.551552)</td>
</tr>
<tr>
<td></td>
<td>81.47727 (24.72123)</td>
<td>42.32143 (26.43938)</td>
<td>55 (32.08063)</td>
<td>21.14583 (34.99984)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture - specialized</td>
<td>1.388889 (25.11719)</td>
<td>7.959184 (34.14001)</td>
<td>-3.522727 (24.67414)</td>
<td>-6.8 (20.22684)</td>
</tr>
<tr>
<td></td>
<td>48.88889 (31.73801)</td>
<td>55.5102 (33.93076)</td>
<td>33.86364 (35.00604)</td>
<td>39.6 (41.2164)</td>
</tr>
<tr>
<td>Other societal actors</td>
<td>-10.42857 (17.17204)</td>
<td>-27.22222 (14.60118)</td>
<td>-38.33333 (20.81666)</td>
<td>-1.25 (3.952847)</td>
</tr>
<tr>
<td></td>
<td>41.42857 (39.97252)</td>
<td>8.333333 (6.614378)</td>
<td>20 (13.22876)</td>
<td>23.75 (41.85375)</td>
</tr>
</tbody>
</table>

The first row in each cell indicates the average utility change, the second row the average distance to np*.
Standard deviation in parentheses

Table 4.2.2.: Number of actors and average number of actors per issue by country

<table>
<thead>
<tr>
<th>Number of actors (per issue)</th>
<th>The Netherlands</th>
<th>Germany</th>
<th>Finland</th>
<th>United Kingdom</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading ministry</td>
<td>39 (1)</td>
<td>27 (1)</td>
<td>24 (1)</td>
<td>27 (1)</td>
</tr>
<tr>
<td>Other ministry</td>
<td>40 (1.025)</td>
<td>39 (1.444)</td>
<td>16 (0.6667)</td>
<td>9 (0.333)</td>
</tr>
<tr>
<td>Agencies</td>
<td>28 (0.717)</td>
<td>26 (0.962)</td>
<td>28 (1.166)</td>
<td>57 (2.111)</td>
</tr>
<tr>
<td>Parliament</td>
<td>7 (0.179)</td>
<td>9 (0.333)</td>
<td>10 (0.4166)</td>
<td>0 (-)</td>
</tr>
<tr>
<td>Labour/Consumer/Environment - general</td>
<td>10 (0.256)</td>
<td>21 (0.777)</td>
<td>0 (-)</td>
<td>5 (0.185)</td>
</tr>
<tr>
<td>Labour/Consumer/Environment - specialized</td>
<td>12 (0.307)</td>
<td>12 (0.444)</td>
<td>16 (0.666)</td>
<td>12 (0.445)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture - general</td>
<td>44 (1.128)</td>
<td>28 (1.037)</td>
<td>13 (0.542)</td>
<td>24 (0.889)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture - specialized</td>
<td>36 (0.923)</td>
<td>49 (1.814)</td>
<td>44 (1.833)</td>
<td>25 (0.926)</td>
</tr>
<tr>
<td>Other societal actors</td>
<td>14 (0.359)</td>
<td>9 (0.333)</td>
<td>3 (0.125)</td>
<td>10 (0.370)</td>
</tr>
<tr>
<td>All societal actors</td>
<td>116 (2.974)</td>
<td>119 (4.407)</td>
<td>76 (3.166)</td>
<td>76 (2.814)</td>
</tr>
</tbody>
</table>

Number of actors is indicated. Average (per issue) in parentheses.
Consider now the societal actor: In Finland and the United Kingdom most societal actors lose, while in the Netherlands and Germany most win. Specialized producer interests in Germany is, overall, the most privileged group. However, German consumer interests benefit nearly as much, while general producer interests and other societal actors lose. General producer interests only win in The Netherlands, where they actually are the group with the highest benefit. Similarly, specialized producer interests only clearly win in Germany, while they benefit only a little bit in The Netherlands and lose in Finland and the United Kingdom. Specialized consumer interests gain about the same benefit in Germany and Finland, win a little bit in the United Kingdom and clearly lose in The Netherlands. General consumer interest win the most in Germany, they also win in the The Netherlands but lose clearly in Great Britain.

Again, the initial distances vary across countries, but not as strong as with the state actors. The highest difference is between general producer interest, where The Netherlands display a four times higher value than the United Kingdom. A similar gap occurs between other societal actors in Germany and the Netherlands.

In sum, producer and consumer interests seem to play a significant role in The Netherlands and, especially, in Germany, whereas in Finland only specialized consumer interests seem to have an impact. In the United Kingdom only specialized consumer interests benefit a little from the change in the national positions. There are, again, clear differences across countries in the pattern of utility as well as in the distribution of initial distances.

Generally, the standard deviation, denoting the square root of the squared sum of deviations from the mean, is rather high, which does not allow definitive conclusions. It should be remembered, furthermore, that we are dealing with the absolute utility change, which is biased by different initial distances to the national position.

Still, a similar picture emerges, when looking at the number of actors involved (see table 4.2.2). Germany has the highest number of societal actors involved, followed by The Netherlands with Finland and the United Kingdom showing notably less actors involved. When considering the number of issues raised, The Netherlands comes in first, with Germany, Finland and the United Kingdom at a smaller level. While the United Kingdom shows a level of discussion, as measured by the number of issues raised, similar to Germany and Finland, the average number of societal actors
involved displays the smallest value in the United Kingdom. Again, the level of participation by interest groups, as measured by the average number of societal actors per issue, is the highest in Germany. With the exception of The Netherlands, specialized business interest groups are most frequently encountered. Again, we find different patterns in the countries. General business interests are the second most frequent interest groups in Germany, but the most involved groups in the Netherlands and are only on the third rank in Finland and the United Kingdom. In Finland and the United Kingdom specialized consumer interests form the second most involved interest group, while they occupy the last rank in Germany and the third in The Netherlands. Except for Germany, general consumer interests come in last.

It should be noted, that the pattern follows more or less the Olsonian expectation, of specialized business interests being most easy to form and, therefore, most numerous, specialized consumer interests or general business interests being second and general consumer interests being rare.

Again, we find evidence for a high impact of interest groups, especially business interests, in Germany, an unusually high impact of specialized consumer interests in Finland and the lowest impact of interest groups in the United Kingdom.

Overall, we can observe different patterns of interest intermediation in the member states.

Germany shows the strongest impact of societal actors. Not only does the leading ministry suffer the greatest losses, while the other ministries also lose, but also can the greatest number of societal actors involved (absolute and per issue) be observed in Germany. This runs counter to our expectations derived from the literature. Regarding the initial distance to the national position, societal actors in Germany occupy a medium rank.

Finland also displays a strong average utility loss by the leading ministry. However, the only societal actor who benefits on average and in absolute terms from the change in the national position are specialized consumer interests, who are also comparatively well represented.

While the average participation per issue by societal actors is rather small in the Netherlands, it shows the highest number of issues, which could be interpreted as a feature of an open system without a restricted agenda. The leading ministry does not
have to suffer a high average utility loss, nevertheless general consumer and producer interests gain notably.

Contrary to the expectation derived from the literature, we do not observe a high number of societal actors involved in public policy-making in the United Kingdom. We, furthermore, observe the lowest utility loss by the actors of the executive, while only specialized consumer interest gain a little.

To sum up our investigations so far: There are different patterns of interest intermediation in the four countries. Germany emerges as the only country, where interest groups clearly seem to have an impact. For Finland and the Netherlands, we find ambivalent evidence. While – except for the state agencies – all state actors clearly lose in Finland, the only societal group which benefits from the change in the national position are specialized consumer interests. In the Netherlands, general producer interests, general consumer interests and, marginally, specialized producer interests benefit from the change in the national position. Furthermore, the high number of issues discussed can be interpreted as a characteristic of an open system. However, the number of actors participating per issue is rather small, as is the loss of the leading ministry. The decision-making in the United Kingdom seems to be clearly dominated by the executive.

The initial distances, while varying across countries, do not display a clear pattern of a system of interest intermediation being characterized by societal actors either widely spread out around or lying close to the governmental position from the very beginning.
4.3. Descriptive Statistics for Hypothesis 3 (policy fields)

When looking for different patterns in the influence of interest groups across old and new policy fields, we can already observe differences regarding the average absolute utility change (depicted in graphs 4.3.1 and 4.3.2). Business interests seem to be much stronger in old policy fields than in new ones. This fits our theoretical expectations. A similar observation can be made for the parliaments.

Taking a closer look at the average absolute utility change (see table 4.3.1), we find that only in the case of agencies, other (non-leading) ministries and specialized consumer interests the difference in the average absolute utility change is marginal across old and new policy fields. Business interests win in old policy fields, but lose in new ones. A similar pattern emerges for general consumer interests, who gain much more in old than in new policy fields. Likewise, parliaments suffer a greater loss in new policy fields than in old ones.

New policy fields seem to be much more restricted by the leading ministry, which loses much more in old policy fields, whereas the opposite occurs with regard to societal interests. This picture is also supported by the average initial distance between the national position and the ones of societal interests, which is much larger is in old policy fields than in new policy fields.

Overall, we can see clear differences between old and new policy fields. Again, the standard deviations are too high to make conclusive judgements.

The average number of actors per issue also varies between old and new policy fields. This is notably the case for other ministries, consumer interests, producer interests and other societal actors.

With the exception of general producer and other interests, the new policy fields are characterized by more societal actors involved. The number of other (non-leading) ministries is also much higher in new policy fields. This contradicts our prior observation: New policy fields are less restricted regarding access than old policy fields.
Graph 4.3.1: Average absolute utility change across actor types in old policy fields

Absolute utility change across actor groups in old policies

Graph 4.3.2: Average absolute utility change across actor types in new policy fields

Absolute utility change across actor groups in new policies

State Actors
LDM=leading ministry; OM=other ministry; AGC=state agency; PA=Parliament

Societal Actors
LCE_GEN=general consumer interests; LCE_SPC=special consumer interests; EIA_GEN=general producer interests; EIA_SPC=special producer interests; OTH=others (professional associations, …)
Table 4.3.1: Number of actors, average number of actors per issue, average distance to np* and average utility change across policy fields

<table>
<thead>
<tr>
<th>Policy field</th>
<th>Number of actors</th>
<th>Old</th>
<th>New</th>
<th>Old</th>
<th>New</th>
<th>Old</th>
<th>New</th>
<th>Old</th>
<th>New</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading ministry</td>
<td>68</td>
<td>49</td>
<td>1</td>
<td>1</td>
<td>4.522 (11.323)</td>
<td>12.146 (18.085)</td>
<td>-7.742 (18.961)</td>
<td>-1.632653 (22.46265)</td>
<td></td>
</tr>
<tr>
<td>Other ministry</td>
<td>32</td>
<td>72</td>
<td>0.47</td>
<td>1.47</td>
<td>16.171 (26.97)</td>
<td>7.0138 (12.661)</td>
<td>-13.203 (19.636)</td>
<td>-14.86111 (18.72658)</td>
<td></td>
</tr>
<tr>
<td>Agencies</td>
<td>82</td>
<td>57</td>
<td>1.12</td>
<td>1.02</td>
<td>23.825 (34.608)</td>
<td>23.934 (33.442)</td>
<td>0.603 (16.807)</td>
<td>-1.502 (22.375)</td>
<td></td>
</tr>
<tr>
<td>Parliament</td>
<td>16</td>
<td>10</td>
<td>0.24</td>
<td>0.20</td>
<td>40.312 (38.447)</td>
<td>18.5 (32.578)</td>
<td>-4.125 (19.293)</td>
<td>-16.5 (27.79388)</td>
<td></td>
</tr>
<tr>
<td>Labour/Consumer/Environment - general</td>
<td>8</td>
<td>28</td>
<td>0.12</td>
<td>0.57</td>
<td>59.687 (35.467)</td>
<td>27.321 (23.939)</td>
<td>5.937 (30.411)</td>
<td>1.607 (28.901)</td>
<td></td>
</tr>
<tr>
<td>Labour/Consumer/Environment - specialized</td>
<td>14</td>
<td>38</td>
<td>0.21</td>
<td>0.78</td>
<td>59.642 (45.083)</td>
<td>37.375 (34.099)</td>
<td>2.214 (19.830)</td>
<td>0.263 (24.243)</td>
<td></td>
</tr>
<tr>
<td>Economy/Industry/Agriculture - general</td>
<td>75</td>
<td>34</td>
<td>1.10</td>
<td>0.69</td>
<td>61.8333 (40.253)</td>
<td>39.8529 (22.912)</td>
<td>6.0333 (13.075)</td>
<td>-12.64706 (22.36865)</td>
<td></td>
</tr>
<tr>
<td>Economy/Industry/Agriculture - specialized</td>
<td>84</td>
<td>70</td>
<td>1.24</td>
<td>1.43</td>
<td>54.880 (35.942)</td>
<td>33.571 (32.203)</td>
<td>8.511 (27.356)</td>
<td>-8.571 (25.695)</td>
<td></td>
</tr>
<tr>
<td>Other societal actors</td>
<td>24</td>
<td>12</td>
<td>0.35</td>
<td>0.24</td>
<td>34.062 (40.839)</td>
<td>11.25 (9.564)</td>
<td>-6.604 (13.933)</td>
<td>-30 (16.091)</td>
<td></td>
</tr>
</tbody>
</table>

Standard deviation for average values in parentheses

Instead, this evidence supports our theoretically grounded expectation, that new policy fields are characterized by more uncertainty. Therefore, more actors are involved, but they are not able to influence the leading ministry, because the stakes and their own position are not as clear as in old policy fields. Furthermore, in old policy fields established interest groups are capable of effectively lobbying state actors.
4.4. Descriptive Statistics for Hypothesis 4 (Resources)

Theoretically, actors with a higher level of resources, regardless whether overall capabilities or level of information available to him are used as a measure, should have a higher influence.

As the graphs 4.4.1 and 4.4.2 show, however, we do not observe any clear relationship between influence (measured as absolute utility change) and resources (measured as capabilities or information respectively).

This evidence is supported by the results of nonparametric measures of association.\(^{128}\) These determine, whether or not a relationship between two variables exists, and estimate the strength of this effect. Nonparametric measures of association do not need any a priori assumption regarding the distribution of the variables. The estimation of the strength of the effect ranges between −1 and 1, with values close to 1 denoting a strong association and a value of 0 denoting no association. While there are small differences in the calculation of the measures used here (spearman's rho, Kendalls tau-a and tau-b), all are based on a comparison of the ranks of the two variables. That is the higher the correlation between these ranks, the higher the association. If the rankings are identical, a perfect association (=1) is measured. Additionally, a test of independence can be performed. It tests the hypothesis, that there is no relationship between the two variables. The P-value denotes the probability, that a sample leads to the measured association, while in fact there is no relationship between these two variables. By convention probabilities below 5% are considered significant. In this case (see table 4.4.1) we can observe a very weak negative relationship, which is not statistically significant at the 5%-level.

<table>
<thead>
<tr>
<th></th>
<th>Absolute utility change and capabilities</th>
<th>Absolute utility change and information</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>P &gt;</td>
<td>t</td>
</tr>
<tr>
<td>Spearman's rho</td>
<td>-0.0637</td>
<td>0.0767 774</td>
</tr>
<tr>
<td>Kendalls tau-a</td>
<td>-0.0394</td>
<td>0.0890 774</td>
</tr>
<tr>
<td>Kendalls tau-b</td>
<td>-0.0452</td>
<td>0.0890 774</td>
</tr>
</tbody>
</table>

\(^{128}\) cf. Gibbons 1993
Graph 4.4.1.: Scatterplot of absolute utility change and capabilities

Graph 4.4.2.: Scatterplot of absolute utility change and information

State Actors
LDM=leading ministry; OM=other ministry; AGC=state agency; PA=Parliament

Societal Actors
LCG_GEN=general consumer interests; LCE_SPC=special consumer interests; EIA_GEN=general producer interests; EIA_SPC=special producer interests; OTH=others (professional associations, ...)

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Graph 4.4.3.: Differences in information and capabilities across actor types

Graph 4.4.4.: Differences in absolute utility change across actor types
4.5. Analysis of (Co-) Variance

As the discussion of the descriptive statistics has shown, there are differences in the absolute utility change as well as in the level of participation by different actors across countries and between policy fields. We have to ask ourselves, though, whether or not the differences in the absolute utility change for actor groups is greater across or within countries/policy fields. Are individual attributes more important in determining the influence of an actor, or is the environment decisive?

To answer this question, I will carry out an analysis of variance. An analysis of variance determines the strength of variation for an independent variable across a (number of) categorical independent variable(s). “Thus, it is the amount of variability within the categories as compared with differences between them which determines how close the two variables are associated.”\textsuperscript{129} As categories I will use the system of interest intermediation (approximated by countries) and old – new policy fields. Furthermore, I also consider the interaction of actor groups with countries and policy fields, thereby allowing for an additional effect for particular combinations of the two categories. Otherwise, the assumption would be made, that the mean population differences are additive, that is equal across the single categories.\textsuperscript{130} Furthermore, while there might be a category, which differs notably from the others, the overall differences across categories might not be significant. Without testing for interaction effects, this special case might be hidden by the general pattern.

In a three-way analysis of variance, which considers three categories, besides the partial effect of each category, holding all other values constant, also the overall model is tested. That is, it is tested, whether or not all category do not have a statistically significant effect on the dependent variable. This is done by using a F-Test, where the P-Value denotes the probability, that there actually is no relationship at all. A low P-Value, therefore, tells us, that there is indeed an effect, which is not merely due to chance. By convention, P-Values below 5% are considered to be statistically significant, while values below 1% can be called strongly significant. The overall explanatory power is measured by the percentage of explained variation (R\textsuperscript{2}). To make comparisons across models with different complexity possible, an adjusted

\textsuperscript{129} Blalock 1979: 341
\textsuperscript{130} Blalock 1979 355-9
value is used.\textsuperscript{131} To estimate the impact of each category, the partial variation (measured as the squared sum of deviations) is also computed and presented. The residual category refers to the variation left unexplained by the independent variables.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|}
\hline
\textbf{Categories} & \textbf{(Partial) Variation} & \textbf{F- Value} & \textbf{P>F} \\
\hline
Overall & 45511.3049 & 2.86 & 0.0000 \\
Actor groups & 17007.4345 & 4.40 & 0.0000 \\
Countries & 212.167018 & 0.15 & 0.9319 \\
Interaction effect & 20499.482 & 1.93 & 0.0065 \\
Residual & 357232.093 & & \\
\hline
\end{tabular}
\caption{Analysis of Variance – Systems of Interest Intermediation}
\end{table}

While the impact of the overall model considering actor groups and countries is statistically significant, the independent variables nevertheless only explain 7% of the variation, when taking the complexity of the model into consideration. There are statistically significant differences across actor groups. The differences across countries overall are not statistically significant, however, there are significant interaction effects. Generally speaking, therefore, the differences across actor groups are greater than the differences across systems of interest intermediation.

\begin{table}[h]
\centering
\begin{tabular}{|l|c|c|c|}
\hline
\textbf{Categories} & \textbf{(Partial) Variation} & \textbf{F- Value} & \textbf{P>F} \\
\hline
Overall & 48921.7796 & 6.15 & 0.0000 \\
Actor groups & 21337.6736 & 5.70 & 0.0000 \\
Policy fields & 6674.84368 & 14.26 & 0.0002 \\
Interaction effect & 14986.4302 & 4.00 & 0.0001 \\
Residual & 353821.618 & & \\
\hline
\end{tabular}
\caption{Analysis of Variance – Policy fields}
\end{table}

\textsuperscript{131} Hamilton 1996: 284-90
A different picture emerges, regarding policy fields. Here, we can not only register significant differences across actor groups and a notable interaction effect. There are also significant differences between old and new policy fields. The overall model, furthermore, has a higher proportion of explained variation.

When computing a single model, which includes actor groups, countries, policy fields and the respective interaction effects, all factors are significant.

As noted before, however, the absolute utility change alone is an unreliable measure, because of the differences in the initial distance. In a second step, therefore, I will perform an analysis of covariance, which additionally takes continuous variables into consideration. Besides the initial distance, structural factors and the overall value of a certain policy are added. I have already discussed the reasons for including situational factors in sections 2.1. and 3.2.. In the analysis of covariance, I will include
- the initial distance to the national position
- the distance to the mean position of actors similar interests
- the proportion of actors with similar interests (relative group size)
- the heterogeneity of the positions if actors with similar interests
- the overall value an actor attaches to the issue at hand (salience) as control variables. Furthermore, I estimate the effect of the (logarithmically transformed) capabilities of an actor.

The combined model (see table 4.5.3) as a whole is strongly significant and explains about one quarter of the variation in the absolute utility change. When controlling – amongst others – for the initial distance, the system of interest intermediation does not yield a significant result. The same is true for policy fields. However, both interaction effects are significant. Resources, even when using different measurements, are not statistically significant.\(^{132}\) Interestingly, information is much less insignificant than capabilities, touching even the 10%-level, which is also sometimes considered as acceptable. The prior investigation has yielded the same overall result, however, there capabilities were found to be more significant than information.

\(^{132}\) The results for different measurements of resources have been estimated in separate computations with the same set of variables as in the overall model.
Table 4.5.3.: Analysis of Variance – Combined model including control variables

<table>
<thead>
<tr>
<th>Categories</th>
<th>(Partial) Variation</th>
<th>Observations</th>
<th>Adj. $R^2$</th>
<th>$P&gt;F$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall</td>
<td>116974.062</td>
<td>774</td>
<td>0.2437</td>
<td></td>
</tr>
<tr>
<td>Actor groups</td>
<td>14765.4138</td>
<td></td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>Countries</td>
<td>2173.91326</td>
<td></td>
<td>0.1473</td>
<td></td>
</tr>
<tr>
<td>Interaction - Actor groups and Countries</td>
<td>13905.4767</td>
<td></td>
<td>0.0486</td>
<td></td>
</tr>
<tr>
<td>Policy fields</td>
<td>111.936737</td>
<td></td>
<td>0.5990</td>
<td></td>
</tr>
<tr>
<td>Interaction effect – Actor groups and policy fields</td>
<td>5782.37232</td>
<td></td>
<td>0.0476</td>
<td></td>
</tr>
<tr>
<td>Capabilities (logarithmic)</td>
<td>347.710843</td>
<td></td>
<td>0.3541</td>
<td></td>
</tr>
<tr>
<td>Capabilities</td>
<td>241.519708</td>
<td></td>
<td>0.4372</td>
<td></td>
</tr>
<tr>
<td>Information (logarithmic)</td>
<td>938.73442</td>
<td></td>
<td>0.1289</td>
<td></td>
</tr>
<tr>
<td>Information</td>
<td>851.457478</td>
<td></td>
<td>0.1444</td>
<td></td>
</tr>
<tr>
<td>Initial distance to national position</td>
<td>33375.2375</td>
<td></td>
<td>0.0000</td>
<td></td>
</tr>
<tr>
<td>Distance to mean position</td>
<td>347.710843</td>
<td></td>
<td>0.3541</td>
<td></td>
</tr>
<tr>
<td>Group size</td>
<td>2108.90911</td>
<td></td>
<td>0.0227</td>
<td></td>
</tr>
<tr>
<td>Group heterogeneity</td>
<td>131.419317</td>
<td></td>
<td>0.5688</td>
<td></td>
</tr>
<tr>
<td>Salience</td>
<td>230.554009</td>
<td></td>
<td>0.4505</td>
<td></td>
</tr>
<tr>
<td>Residual</td>
<td>285087.76</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

To sum up, the analysis of (co-)variance clearly shows no impact of countries per se. The evidence against an impact of policy fields is more ambivalent. Both interaction effects are significant. Resources do not have a notable impact. Besides the initial distance to the national position, the proportion of actors with similar interests emerges as a substantial effect.

In the next sections I will take a closer look at the differences found in the descriptive statistics and confirmed by this analysis. Especially, I will compute estimations of the strength of the effects found so far additionally to its statistical significance. Furthermore, the assumptions underlying the general linear, to which analysis of (co-)variance as well as regression analysis belong, will be tested.
Multiple regression analysis allows us to determine the impact of several independent variables on a dependent variable. Besides the substantial impact, that is the size of the effect, the statistical significance is estimated. Multiple regression analysis determines the impact of each independent variable, controlling for the effect of all other independent variables: The estimates are given under ceteris paribus conditions.

Standard OLS-Regression, which will be used in the following section, basically estimates a linear function for the dependent variable, minimizing the variation not explained in the model. A standard OLS equation would be

\[ y = \alpha + \beta_1 A + \beta_2 B + \varepsilon \]

where \( y \) denotes the values of the dependent variable, \( A \) and \( B \) the values of the independent variable. \( \alpha \) is a constant, \( \beta_1 \) and \( \beta_2 \) are the regression coefficients and \( \varepsilon \) is an error term. The coefficients estimate the impact an independent variable has on the dependent variable. For example, a one unit increase in \( A \) leads to a \( \beta_1 \) unit increase in \( y \). When \( A \) and \( B \) are measured in the same unit, the comparison of \( \beta_1 \) and \( \beta_2 \) tells us, which independent variable has a stronger impact on the dependent variable. In order to compare the impact of independent variables that are measured in different units, we have to use beta coefficients, which standardize the measure (and, therefore, can not be interpreted directly).

The coefficients refer to the substantial impact of the independent variables. In order to be sure, that the reported effect is not due to this particular sample used, that is the results are caused by chance only, we need tests of statistical significance. A standard test is provided by calculating t-values. As the probability of a certain t-value to occur (P>t) falls below a certain levels, we are growing confident, that the results are statistically significant. By convention the 10%, 5% and 1% levels are used. I will restrict myself to the 5% and the 1% level. When the result is significant at the 1% level, statistical inference tells us that only 1% of the possible samples would display the value we got. The range of values possible at a certain confidence level is given by the confidence interval. T-tests refer to the null hypothesis, that a certain coefficient is actually zero, while F-tests estimate the probability that all coefficients in a model are actually zero. The quality of a model can be judged be the percentage of variance in the data explained by the model (\( r^2 \)). To compare across models, which
differ in the number of parameters, adjusted $r^2$ have to be used. A similar measure is the average error in estimating the dependent variable (Root MSE).

In the following models I will work with dummy variables and interaction effects. Dummy variables are variables, whose assigned value is either 0 or 1. They are used to distinguish groups. A certain observation either belongs to (1) or does not belong (0) to a certain group. Categories that are not dichotomous can be represented by several dummy variables. The coefficient of a dummy variable estimates the impact of group membership. The reference group is coded as the unit, against which pairwise comparisons are made.

Interaction effects can be used to determine, whether or not an effect between an independent and the dependent variable depends in his strength on a third variable. Used with dummy variables the coefficients of interaction effects determine the impact a combination of group memberships has additional to belonging to both groups separately (main effect).\textsuperscript{133}

In the following, I will estimate 8 different regression models. Throughout the dependent variable is the absolute utility change. The baseline model estimates the impact of the initial distance on the absolute utility change. This independent variables serves as a control variable and I will use it in all subsequent models. The second model also uses only control variables: the distance to the group mean, the proportion of actors with similar interests and the heterogeneity of the group’s preferences. Here, I only distinguish the actors by the direction, they want the national position to change. These two models serve as a background to the models derived from the theory discussed above.

The next three models estimate the impact of the system of interest intermediation (approximated by using country dummies), policy fields (old/new) and resources (capabilities, logarithmic) separately. Model 6 combines all previous models. I also included the salience (overall value) as a control variable. Model 7 and 8 include interaction effect. In model 7 the interaction between actor group and system of interest intermediation is estimated additionally, while model 8 estimates the interaction of actor group and policy field.

As reference groups the leading ministry, Great Britain and old policy fields are used.

\textsuperscript{133} cf. Fox 1997 and Wooldridge 2000
Model 0 – Baseline model
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \epsilon \]

Model 1 – Structural Effects
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{i_gpos} + \beta_3 \text{i_bc} + \beta_4 \text{i_sd} + \epsilon \]

Model 2 – Actor group
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{AKG} + \epsilon \]

Model 3 – System of interest intermediation
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{SIV} + \epsilon \]

Model 4 – Policy field
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{NPF} + \epsilon \]

Model 5 - Resources
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{RES} + \epsilon \]

Model 6 – General (controlling for overall value)
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{i_gpos} + \beta_3 \text{i_bc} + \beta_4 \text{i_sd} + \beta_5 \text{i_gbc} + \beta_6 \text{RES} + \beta_7 \text{SIV} + \beta_8 \text{NPF} + \beta_9 \text{AKG} + \beta_{10} \text{OV} + \epsilon \]

Model 7 – Interaction effect: Actor group and system of interest intermediation
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{i_gpos} + \beta_3 \text{i_bc} + \beta_4 \text{i_sd} + \beta_5 \text{i_gbc} + \beta_6 \text{RES} + \beta_7 \text{SIV} + \beta_8 \text{NPF} + \beta_9 \text{AKG} + \beta_{10} (\text{AKG} \times \text{SIV}) + \beta_{10} \text{OV} + \epsilon \]

Model 8 – Interaction effect: Actor group and policy field
\[ \gamma_i = \alpha + \beta_1 \text{POS} + \beta_2 \text{i_gpos} + \beta_3 \text{i_bc} + \beta_4 \text{i_sd} + \beta_5 \text{RES} + \beta_6 \text{SIV} + \beta_7 \text{NPF} + \beta_8 \text{AKG} + \beta_9 (\text{AKG} \times \text{NPF}) + \beta_{10} \text{OV} + \epsilon \]

SI= system of interest intermediation (coded as country dummies, reference group: UK); PF=policy field (dummy variable, reference group: old policy field); \( \gamma \)=absolute utility change of actor \( i \); RS=i ressources of actor \( i \) (logarithmic); AG=actor type (dummy variable, reference group=ministries); POS=initial distance to national position (np*); i_gpos=distance to group mean; i_bc=proportion of actors with similar interest to all actors involved; i_sd=heterogeneity of group having similar interests
Table 4.6.1.: Results of Multiple Regression

<table>
<thead>
<tr>
<th></th>
<th>Model 0</th>
<th>Model 1</th>
<th>Model 2</th>
<th>Model 3</th>
<th>Model 4</th>
<th>Model 5</th>
<th>Model 6</th>
<th>Model 7</th>
<th>Model 8</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Obs</strong></td>
<td>774</td>
<td>774</td>
<td>774</td>
<td>774</td>
<td>774</td>
<td>753</td>
<td>753</td>
<td>753</td>
<td>753</td>
</tr>
<tr>
<td><strong>Adj-R²</strong></td>
<td>0.16</td>
<td>0.19</td>
<td>0.19</td>
<td>0.17</td>
<td>0.17</td>
<td>0.17</td>
<td>0.24</td>
<td>0.24</td>
<td>0.23</td>
</tr>
<tr>
<td>P &gt; F Model 0</td>
<td>-</td>
<td>0.0002</td>
<td>0.0000</td>
<td>0.1786</td>
<td>0.0054</td>
<td>0.9715</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td>P &gt; F Model 6</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0560</td>
<td>0.0863</td>
</tr>
<tr>
<td><strong>Adj-R²</strong></td>
<td>0.19</td>
<td>0.19</td>
<td>0.17</td>
<td>0.17</td>
<td>0.17</td>
<td>0.17</td>
<td>0.24</td>
<td>0.24</td>
<td>0.23</td>
</tr>
<tr>
<td><strong>P &gt; F Model 0</strong></td>
<td>-</td>
<td>0.0002</td>
<td>0.0000</td>
<td>0.1786</td>
<td>0.0054</td>
<td>0.9715</td>
<td>0.0000</td>
<td>0.0000</td>
<td>0.0000</td>
</tr>
<tr>
<td><strong>P &gt; F Model 6</strong></td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.0560</td>
<td>0.0863</td>
</tr>
</tbody>
</table>

Initial dist. (POS) | 0.2619  | 0.291   | 0.274   | 0.269   | 0.251   | 0.278   | 0.328   | 0.329   | 0.318   |

Distance to group mean (i_gpos) | 0.049   | 0.049   | 0.027   | 0.027   | 0.027   | 0.027   | 0.027   | 0.027   | 0.027   |


Group homogeneity (i_sd) | 0.126   | 0.126   | 0.126   | 0.126   | 0.126   | 0.126   | 0.126   | 0.126   | 0.126   |


Agencies | 0.589   | 2.589   | -0.339  | 0.12    | -3.868  | -2.697  | 3.729   | 3.729   | 3.729   |


Labour/Consumer/Environment - general | 0.167   | 3.950   | -0.448  | 0.11    | -20.073 | -4.838  | 7.877   | 7.877   | 7.877   |


Germany | -2.549  | 2.135   | -5.560  | 0.24    | -8.623  | -0.898  | 2.429   | 2.429   | 2.429   |

Finland | -1.799  | 2.319   | -0.391  | 0.16    | -8.068  | -0.042  | 2.473   | 2.473   | 2.473   |

New policy fields | -4.245  | 1.521   | -3.056  | 1.78    | -1.960  | 2.556   | 3.904   | 3.904   | 3.904   |

Interaction effects in Models 7 and 8 | Results in Table 4.6.3. |

RS Capabilities, log. | 0.037   | 1.034   | -0.374  | 0.31    | -0.005  | -0.083  | 1.204   | 1.204   | 1.204   |

OV Overall value | -0.010  | 0.34    | -0.016  | 0.032   | -0.011  | -0.031  | 0.031   | 0.031   | 0.031   |

Standard errors in parentheses * significant at 5% level; ** significant at 1% level
Reference groups = AG: ldm (leading ministry); SII: UK(Great Britain); PF:plfdold (old policy field)
The initial distance between the actors position and the hypothetical national position always has a small, but statistically very significant impact. The models including structural effects, actor groups and policy fields differ significantly from the baseline model. The models differentiating for the system of interest intermediation and the level of resources available to an actor, however, do not.

Model 6, which combines all those aspects into one analysis, displays a similar picture. The system of interest intermediation and the level of resources do not have a significant effect.

From the structural aspects only the proportion of actors with similar interests has a statistically and substantially significant impact. The higher the proportion of actors with similar interests, the more an actors gains. The distance to the group mean and the heterogeneity of the groups preferences has no notable effect.

The actor type shows a strong and statistically significant effect. In order to get a fuller picture, I have calculated the coefficients with changing references groups.

*Table 4.6.2: Regression results for Model 6 continued (changing reference groups)*

<table>
<thead>
<tr>
<th>Actor type: Absolute utility change compared to reference group (columns)</th>
<th>Reference group</th>
<th>ldm</th>
<th>om</th>
<th>agc</th>
<th>pa</th>
<th>lce_gen</th>
<th>lce_spc</th>
<th>eia_gen</th>
<th>eia_spc</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leading ministry (ldm)</td>
<td>-9.886</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Other ministry (om)</td>
<td>-0.339</td>
<td>9.106</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Agencies (agc)</td>
<td>-13.102</td>
<td>9.015</td>
<td>-0.355</td>
<td>11.043</td>
<td>-5.783</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Parliament (pa)</td>
<td>-0.448</td>
<td>9.015</td>
<td>-0.355</td>
<td>11.043</td>
<td>-5.783</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LCE – gen. (lce_gen)</td>
<td>-5.533</td>
<td>3.916</td>
<td>-5.361</td>
<td>5.964</td>
<td>-5.783</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>LCE – spec. (lce_spc)</td>
<td>-11.751</td>
<td>2.326</td>
<td>-11.601</td>
<td>0.245</td>
<td>-12.031</td>
<td>-6.941</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>EIA – gen. (eia_gen)</td>
<td>-7.538</td>
<td>1.884</td>
<td>-7.403</td>
<td>3.963</td>
<td>-7.831</td>
<td>-2.745</td>
<td>3.818</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>EIA – spec. (eia_spc)</td>
<td>-15.980</td>
<td>-7.662</td>
<td>-17.195</td>
<td>-5.801</td>
<td>-17.635</td>
<td>-12.540</td>
<td>-5.968</td>
<td>-10.014</td>
<td>-</td>
</tr>
<tr>
<td>Other soc. actors (oth)</td>
<td>-15.980</td>
<td>-7.662</td>
<td>-17.195</td>
<td>-5.801</td>
<td>-17.635</td>
<td>-12.540</td>
<td>-5.968</td>
<td>-10.014</td>
<td>-</td>
</tr>
</tbody>
</table>

Standard errors in parentheses* significant at 5% level; ** significant at 1% level

The leading ministry clearly emerges as the most powerful actor. Compared to the leading ministry all other actors lose absolute utility. The results are statistically significant for other ministries, the parliaments and producer interests. The parliament and other ministries nearly always lose compared to other groups. State agencies have mixed results. Comparing producer to consumer interests yields an interesting
result: General consumer interests are substantially and statistically significant stronger than general producer interests.

The overall impression so far is, that - when, amongst others, controlling for structural effects of the situation – the environment of an actor (system of interest intermediation and policy field) does not have a notable effect. The same is true for his resources. The main explanatory variables so far are thus actor type and the proportion of actors with similar interests.

In a last step we consider interaction effects. By introducing interaction effects we are looking for deviations from the general pattern described by the main effects. The latter estimate the average effect of a certain independent variable on the dependent variable, while holding all other variables constant. The coefficients for the country variables, for instance, estimates the effect countries on average have on the absolute utility change, ceteris paribus. That means specifically, that we are comparing the difference in the utility change for a certain actor group across countries. Just the opposite, the actor group variables estimate the effect of being member of a certain group within a country. It should be noted, that the average differences between the countries is estimated, that is large differences in the absolute utility change of a specific actor group across countries could be levelled out by small differences across countries for all the other actor groups. Interaction effects, now, estimate specific combination of two independent variables. An interest group might be unusually influential in a certain country, while still generally, comparing the differences for all actor groups across countries, there are no significant and substantial differences across countries.

This seems to be the case here (see table 4.6.3.): Again, the main effects do not yield significant and substantial results for the system of interest intermediation and policy field, but there are interaction effects. Some unusual cases need to be noted. Regarding the system of interest intermediation only general consumer interests and specialized producer interests in Germany as well as specialized consumer interests in Finland show a significant and strong deviation from the general pattern. Concerning policy fields this is true for business interests. This finding is supported by the descriptive statistics discussed earlier.
| State actors | Other ministries, Netherlands | -5.244 (9.141) |
| | Other ministries, Germany | 7.039 (9.402) |
| | Other ministries, Finland | 0.027 (10.370) |
| | Agencies, Netherlands | -1.863 (7.140) |
| | Agencies, Germany | 5.500 (7.566) |
| | Agencies, Finland | 13.742 (7.529) |
| | Parliament, Netherlands | 0.000 (0.000)** |
| | Parliament, Germany | 20.972 (11.459) |
| | Parliament, Finland | 15.486 (11.605) |
| Social actors | Labor/Consumer/Environment general, Netherlands | 16.625 (12.353) |
| | Labor/Consumer/Environment general, Germany | 27.331 (11.616)** |
| | Labor/Consumer/Environment general, Finland | 0.000 (0.000)** |
| | Labor/Consumer/Environment specialized, Netherlands | -8.621 (9.801) |
| | Labor/Consumer/Environment specialized, Germany | 14.499 (10.063) |
| | Labor/Consumer/Environment specialized, Finland | -22.470 (10.473)** |
| | Economy/Industry/Agriculture general, Netherlands | -13.152 (7.539) |
| | Economy/Industry/Agriculture general, Germany | -13.542 (8.013) |
| | Economy/Industry/Agriculture specialized, Netherlands | 6.678 (7.391) |
| | Economy/Industry/Agriculture specialized, Germany | 19.539 (7.490)** |
| | Economy/Industry/Agriculture specialized, Finland | -13.228 (7.761) |
| | Other societal groups, Netherlands | -11.306 (9.860) |
| | Other societal groups, Germany | -5.228 (10.992) |
| | Other societal groups, Finland | -6.000 (13.523) |
| State actors | Other ministries, new policy fields | -2.132 (5.903) |
| | Agencies, new policy fields | -5.726 (5.410) |
| | Parliament, new policy fields | -9.185 (9.283) |
| | Labor/Consumer/Environment general, new policy fields | 2.791 (9.148) |
| | Labor/Consumer/Environment specialized, new policy fields | 5.772 (7.775) |
| | Economy/Industry/Agriculture general, new policy fields | -13.049 (6.006)** |
| | Economy/Industry/Agriculture specialized, new policy fields | -11.362 (5.361)** |
| | Other societal groups, new policy fields | 14.476 (8.345) |

Standard errors in parentheses* significant at 5% level; ** significant at 1% level
Reference groups= leading ministry, Great Britain, old policy field
When interpreting the coefficient, it has to be noted that the reference group are now leading ministries in Great Britain. In order to derive at the average difference in the absolute utility change between the reference group and the group, whose interaction effect coefficient is investigated, we need to calculate the net effect. Besides the coefficient of the interaction effect, the coefficients of both main effects need to be considered.

For our purposes, however, it is sufficient to note that the system of interest intermediation generally makes no notable difference. The same is true for policy fields. Only business interests differ somewhat across policy fields and only general consumer interests and specialized producer interests in Germany as well as specialized consumer interests in Finland stand out, when comparing across systems of interest intermediation. It should also be noted, that the incremental F-Test, comparing the models including interaction effects, is not statistically significant at the 5%-level. That is, the difference between the model specification including interaction effects and the one without interaction effects is not strongly significant.

Consider now the effect of resources. Across all models it is neither statistically nor substantially significant. This also holds true, when we are using different measurements.

*Table 4.6.4.: Model 6 - The impact of resources on absolute utility change*

| Measurement of Resources               | Coefficient | t-Value | P>|t|
|----------------------------------------|-------------|---------|-----|
| Capabilities, logarithmic              | -.3742      | -0.314  | 0.753|
| Capabilities                           | .0009       | 0.030   | 0.976|
| Information, logarithmic               | 1.578       | 0.947   | 0.344|
| Information                            | .035        | 1.057   | 0.291|

To sum up, we can note that the actor type and the proportion of actors with similar interests emerge as the main explanatory variables. The differences across policy fields and countries are generally much smaller than the variation between actor types within the same country or type of policy field. Resources do not have any notable effect.
4.7. Regression Diagnostics

OLS-Regression analysis is based on a number of assumptions. For instance, the model must be specified correctly and there should be no measurement errors. 134 In order to get unbiased estimates for coefficients and standard errors, on which significance tests are based, the following need to be fulfilled:

- Errors cancel out each other (zero mean)
- Errors show no particular pattern (constant variance, homoscedasticity)
- Errors are uncorrelated with each other (no autocorrelation) 135

When the sample size is small, the errors also need to be distributed normally. However, as we are not dealing with a small sample, we can rely on the central limit theorem, that is, asymptotically the estimates will approximate the true values. Problems in estimation can also be caused by outliers and collinearity, that is a strong relationship between independent variables. 136

“The plausibility of these assumptions must be a matter of degree; in actual research they are seldom, if ever, literally true.” 137 In the following I will investigate, to which degree these assumptions are met. In case of severe violations of one of the assumptions I will discuss, whether or not the prior results are nevertheless robust. These investigations will be restricted to models 6, 7 and 8.

In order to estimate heteroscedasticity, we can use residuals versus fitted values plots (graphs 4.7.1-3.). When the size of the residuals does not change with the fitted values, the error term is homoscedastic. In all three graphs, there is a shift in the error terms. However, the size of the residuals does not notably change. A more formal test is provided by the Cook-Weisberg test. 138 For all models, this test provides evidence for homoscedasticity. Robust estimation could be used to deal with a violation of this assumption. 139

134 Lewis-Beck
135 Hamilton 1992: 110-2
136 Fox 1991: 10-1
137 Hamilton 1992: 111
138 Fox 1997: 326-8
139 Dougherty 2002: 230-8
Graph 4.7.1: Residual versus predicted values Plot for Model 6

Graph 4.7.2: Residual versus predicted values Plot for Model 7

Graph 4.7.3: Residual versus predicted values Plot for Model 8
Next we consider influential cases. These can be detected by leverage-versus-residual-squared plots (graphs 4.7.4.-6). Cases, which have an above average leverage (above the horizontal line) and an above average residual (right to the vertical line), can be considered to be influential outliers. These are unusual cases, which are not properly explained by the model, but still influence its estimates. Unless there is a clear reason to expect them to be false (measurement error, etc.), we cannot tell whether or not they produce wrong estimates. I have used the number of the observation as data points, in order to identify influential outliers. Clearly, some cases can be detected.

A more formal way to detect outliers is by using Cooks D and DFITS. I have used these measures following conventional standards to identify influential outliers. A more formal way to detect outliers is by using Cooks D and DFITS. I have used these measures following conventional standards to identify influential outliers. A more formal way to detect outliers is by using Cooks D and DFITS. I have used these measures following conventional standards to identify influential outliers. A more formal way to detect outliers is by using Cooks D and DFITS. I have used these measures following conventional standards to identify influential outliers. These have been marked in the dataset using a dummy variable. To estimate there influence, I will later on calculate two separate regression: one with and one without these cases.

Finally I investigate multicollinearity (micronumerosity). Multicollinearity denotes a linear relationship among the independent variable. The root square of the variance inflation factor estimates the error of the standard errors introduced by multicollinearity. A variance inflation factor below or equal to 2 is irrelevant. In the case of dummy variables, even a higher level is acceptable. Generally, only very strong multicollinearity causes problems.

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variance inflation factor</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Model 6</td>
</tr>
<tr>
<td>Group heterogeneity</td>
<td>2.88</td>
</tr>
<tr>
<td>Initial distance to np*</td>
<td>2.42</td>
</tr>
</tbody>
</table>

From these values, no serious error of the estimates can be expected.

The regression diagnostics has shown, that all models are suffering from heteroscedasticity and influential outliers. The effect of these violations of the regression assumptions will be investigated in the next section.

140 Fox 1997: 276-81
141 Hamilton 1997: 338-9 and 351-2
Graph 4.7.4.: Leverage-versus-squared-residuals for Model 6

Graph 4.7.5.: Leverage-versus-squared-residuals for Model 7

Graph 4.7.6.: Leverage-versus-squared-residuals for Model 8
4.8. Multiple Regression Analysis – Concluding Remarks

The outliers yield statistically and substantially different results in model 6 (as measured by the coefficient). However, the effect of the outliers on the overall model, which can be estimated by comparing the coefficient for the computation with and without the outliers, is marginal (see table 4.8.1). Only the coefficients for general consumer interests and Finland are notably affected. A similar picture emerges with regard to models 7 and 8. The different estimations can be found in Appendix D. Accordingly, I will in the following continue to interpret the original estimation.

So far, I have estimated the different models for all cases. The reasoning behind this was, that otherwise the analysis would be biased. One of the results has been, that interest groups do not have a strong influence compared to the leading ministry. This is probably caused by the fact, that in most cases there is no change in the national position.

When computing the multiple regression only with cases, in which there is a change in the national position, we find a picture similar to our prior results. One difference needs to be noticed: The losses of business interests become more pronounced. The same holds true, for other societal interests. Furthermore, the group size does not make a significant difference any more.

In a last step, I will consider the separate estimation of the influence of actor groups, policy fields and the control variables for each country and policy field (table 4.8.2.). The question is, whether or not the previous results concerning the differences for some combinations of countries or policy fields and actor groups can be confirmed. This also allows us to have a closer look at the situation in each country and policy field.

In the prior analysis we found, that general consumer interests and specialized producer interests in Germany as well as specialized consumer interests in Finland were unusually strong. Furthermore, business interests seemed to be particularly strong in old policy fields. Except for the specialized business interests in Germany, these results are confirmed by the comparison of the individual regressions.
Table 4.8.1: Model 6 - Outlier

<table>
<thead>
<tr>
<th>Model 6</th>
<th>With Outlier-Dummy</th>
<th>No outlier</th>
<th>When np*=np</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs</td>
<td>753</td>
<td>753</td>
<td>735</td>
</tr>
<tr>
<td>R²</td>
<td>0.24</td>
<td>0.29</td>
<td>0.24</td>
</tr>
<tr>
<td>Root MSE</td>
<td>20.373</td>
<td>19.473</td>
<td>19.282</td>
</tr>
<tr>
<td>Constant</td>
<td>-12.132 (1.57)</td>
<td>-14.655 (7.741)</td>
<td>-11.710 (1.59)</td>
</tr>
<tr>
<td>Outlier</td>
<td>-</td>
<td>41.145 (6.430)**</td>
<td>-</td>
</tr>
<tr>
<td>Initial distance to nat. pos.</td>
<td>0.328 (9.88)**</td>
<td>0.299 (0.032)**</td>
<td>0.290 (9.07)**</td>
</tr>
<tr>
<td>Distance to group mean</td>
<td>0.037 (0.51)</td>
<td>0.081 (0.073)</td>
<td>0.072 (1.03)</td>
</tr>
<tr>
<td>Group homogeneity</td>
<td>0.074 (0.59)</td>
<td>0.114 (0.124)</td>
<td>0.103 (0.86)</td>
</tr>
<tr>
<td>Agencies</td>
<td>-0.339 (0.12)</td>
<td>-0.690 (0.25)</td>
<td>-0.562 (2.627)</td>
</tr>
<tr>
<td>Labour/Consumer/Environment - general</td>
<td>-0.448 (0.11)</td>
<td>-6.549 (1.56)</td>
<td>-5.884 (4.464)</td>
</tr>
<tr>
<td>Labour/Consumer/Environment - specialized</td>
<td>-5.533 (1.40)</td>
<td>-5.669 (1.48)</td>
<td>-7.508 (3.942)</td>
</tr>
<tr>
<td>Environment/Industry/Agriculture - specialized</td>
<td>-7.538 (2.51)*</td>
<td>-6.798 (2.37)*</td>
<td>-6.846 (3.052)*</td>
</tr>
<tr>
<td>SI I The Netherlands</td>
<td>-2.607 (1.13)</td>
<td>-2.151 (0.98)</td>
<td>-2.643 (2.024)</td>
</tr>
<tr>
<td>Germany</td>
<td>0.560 (0.24)</td>
<td>0.543 (0.24)</td>
<td>0.444 (2.224)</td>
</tr>
<tr>
<td>Finland</td>
<td>-0.391 (0.16)</td>
<td>-1.759 (0.76)</td>
<td>-1.554 (2.228)</td>
</tr>
<tr>
<td>PF New policy fields</td>
<td>-3.056 (1.78)</td>
<td>-3.908 (2.39)*</td>
<td>-3.867 (1.725)*</td>
</tr>
<tr>
<td>RS Capabilities, log.</td>
<td>-0.374 (0.31)</td>
<td>-0.819 (0.72)</td>
<td>-0.400 (1.051)</td>
</tr>
<tr>
<td>OV Overall value</td>
<td>-0.010 (0.34)</td>
<td>-0.013 (0.43)</td>
<td>0.000 (0.031)</td>
</tr>
</tbody>
</table>

Absolute value of t-statistics in parentheses (for np*=np standard errors)
* significant at 5% level; ** significant at 1% level
Reference group: leading ministry, United Kingdom
Table 4.9.3: Combined Model – estimated separately for countries and policy fields

<table>
<thead>
<tr>
<th>Combined model (model 6 separate for countries and policy fields)</th>
<th>The Netherlands</th>
<th>Germany</th>
<th>Finland</th>
<th>United Kingdom</th>
<th>Old Policy fields</th>
<th>New Policy fields</th>
</tr>
</thead>
<tbody>
<tr>
<td>Obs</td>
<td>230</td>
<td>220</td>
<td>146</td>
<td>157</td>
<td>395</td>
<td>358</td>
</tr>
<tr>
<td>Adj-R²</td>
<td>0.26</td>
<td>0.41</td>
<td>0.44</td>
<td>0.11</td>
<td>0.26</td>
<td>0.19</td>
</tr>
<tr>
<td>Constant</td>
<td>-2.130 ( (12.668) ) &amp; -5.881 ( (14.458) ) &amp; -92.742 ( (19.15) ) * &amp; 27.442 ( (15.983) ) &amp; -20.913 ( (9.126) ) &amp; -4.267 ( (12.549) )</td>
<td></td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Initial distance to nat. pos.</td>
<td>0.270 ( (0.054) ) ** &amp; 0.534 ( (0.066) ) * &amp; 0.588 ( (0.085) ) * &amp; 0.026 ( (0.070) ) &amp; 0.254 ( (0.038) ) &amp; 0.428 ( (0.065) )</td>
<td></td>
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</tr>
<tr>
<td>Distance to group mean</td>
<td>0.274 ( (0.107) ) * &amp; -0.542 ( (0.143) ) * &amp; 0.916 ( (0.198) ) * &amp; -0.406 ( (0.183) ) * &amp; -0.042 ( (0.078) ) &amp; 0.264 ( (0.147) )</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Group size</td>
<td>-13.901 ( (7.794) ) &amp; 22.581 ( (6.543) ) * &amp; 24.170 ( (9.264) ) * &amp; -2.209 ( (7.019) ) &amp; 18.252 ( (4.521) ) &amp; 2.956 ( (7.016) )</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Group homogenity</td>
<td>-0.122 ( (0.200) ) &amp; -0.438 ( (0.222) ) * &amp; 1.136 ( (0.284) ) * &amp; -0.668 ( (0.319) ) * &amp; -0.013 ( (0.160) ) &amp; 0.370 ( (0.202) )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other ministries</td>
<td>-12.873 ( (4.466) ) ** &amp; -6.626 ( (5.414) ) &amp; -4.785 ( (6.874) ) &amp; -8.324 ( (6.651) ) &amp; -10.334 ( (4.189) ) &amp; -12.686 ( (4.286) )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Agencies</td>
<td>-5.453 ( (5.216) ) &amp; -3.369 ( (5.804) ) &amp; 14.813 ( (6.601) ) * &amp; -3.126 ( (4.423) ) &amp; 4.084 ( (3.452) ) &amp; -5.860 ( (4.732) )</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Parliament</td>
<td>-22.500 ( (8.201) ) ** &amp; -9.498 ( (8.316) ) &amp; -3.306 ( (8.113) ) * &amp; 0.000 ( (0.000) ) * &amp; -5.802 ( (5.551) ) &amp; -17.646 ( (7.881) )</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Labour/Consumer/Environmen - gen.</td>
<td>-5.026 ( (6.959) ) &amp; -0.499 ( (6.224) ) * &amp; 0.000 ( (0.000) ) * &amp; -9.964 ( (8.267) ) &amp; -0.782 ( (7.149) ) &amp; -4.131 ( (5.478) )</td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Labour/Consumer/Environmen - spec.</td>
<td>-20.545 ( (6.708) ) ** &amp; -2.449 ( (7.781) ) &amp; 5.281 ( (8.069) ) &amp; -8.008 ( (8.309) ) &amp; -6.673 ( (6.008) ) &amp; -10.497 ( (5.469) )</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Environment/Industry/Agriculture - gen.</td>
<td>-13.318 ( (5.505) ) * &amp; -15.566 ( (5.965) ) * &amp; -4.527 ( (8.184) ) &amp; -4.214 ( (5.163) ) &amp; -3.555 ( (3.978) ) &amp; -22.569 ( (5.245) )</td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Environment/Industry/Agriculture - spec.</td>
<td>-7.696 ( (5.283) ) &amp; -7.814 ( (5.587) ) &amp; 2.527 ( (7.151) ) &amp; -11.662 ( (5.050) ) &amp; 0.672 ( (3.961) ) &amp; -18.514 ( (4.642) )</td>
<td></td>
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</tr>
<tr>
<td>Other societal actors</td>
<td>-14.714 ( (7.088) ) * &amp; -12.737 ( (8.648) ) &amp; -8.798 ( (11.663) ) &amp; -3.184 ( (7.356) ) &amp; -8.719 ( (5.246) ) &amp; -28.845 ( (7.547) )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RS Capabilities, log.</td>
<td>0.731 ( (2.385) ) &amp; 2.817 ( (2.395) ) &amp; 3.956 ( (3.012) ) &amp; -1.521 ( (1.796) ) &amp; 1.641 ( (1.315) ) &amp; -4.467 ( (2.289) )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>OV Overall value</td>
<td>0.048 ( (0.060) ) &amp; -0.177 ( (0.061) ) * &amp; -0.019 ( (0.079) ) &amp; 0.115 ( (0.049) ) &amp; -0.042 ( (0.038) ) &amp; 0.042 ( (0.051) )</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Standard errors in parentheses
* significant at 5% level; ** significant at 1% level
Reference group: leading ministry
4.9. Summary of empirical results

Most of the times, the national position does not change or does so only marginally. There are, nevertheless sometimes changes in the national position that can be plausibly explained by the influence of interest groups. The descriptive statistics still show influence by interests groups, when considering the distribution of average absolute utility change and participation. When controlling for situational effects, the interest groups – while still losing compared to the leading ministries – are, overall, more influential than other ministries. The hypothesis, that interest groups do exercise influence on the national positions regarding EU-policies in Finland, Germany, The Netherlands and the United Kingdom, can, therefore, not be rejected. Overall, however, the influence of interest groups is severely limited.

While the descriptive statistics showed differences in the influence and participation of interest groups across countries and policy fields, the regression analysis as well as the analysis of (co-)variance did not support this overall picture. The countries per se do not make a difference. Policy fields as an explanatory variable only yield significant results, when leaving out influential outliers. Otherwise, it is not significant at the 5% level. In both cases, there are interaction effects.

There is no clear evidence for the hypothesis, that differences in policy fields or systems of interest intermediation have a substantial impact. Nevertheless, some peculiar cases can be noted. Overall, my hypothesis, that policy fields or systems of interest intermediation do not have a substantial impact upon the distribution of influence of interest groups, can not be rejected.

There is no evidence, that the distribution of resources has a notable impact on the influence of interest groups. This hypothesis can, therefore, be rejected.
5. Conclusion

Concerning the leading research question, whether influence is better explained by the environment of an actor or by individual attributes of his, we discover mixed evidence. On the one hand, we did not find strong evidence for systemic differences, when controlling for other factors. On the other hand, we did find no evidence for the impact of individual attributes, if we limit ourselves to the distribution of resources. It also has to be remembered, that the distinction between systemic and individual attributes in reality might not be as clear cut as in analytical terms. On the one hand the distribution of resources, which I have treated as an individual attribute, might depend on the system of interest intermediation or might be peculiar to the policy field. On the other hand, the actor types themselves, which I did not consider as referring exclusively to individual attributes, could actually represent these. This ambivalence is due to a common problem in empirical research: Reality is necessarily more complex than the models, which are trying to grasp and explain it. Another limit of this study is, that we could not derive at a definitive measure for the dependent variable. This, again, seems to be a common problem. Therefore, this work can only yield preliminary evidence, which need to be elaborated in further research.

Europe is “still an etatist continent”\textsuperscript{142}. Specifically, the leading ministry clearly emerges as the dominant actor across all countries. In most cases, there is no or only a small change in the national position. This could be due to the fact, that most cases are highly technical, making it difficult for interest groups to mobilize their constituency, and that the leading ministry might benefit from its agenda-setting power. When there is change, differences among the countries occur. The unusual impact of general consumer interests in Germany and the influence of specialized consumer interests in Finland must be mentioned here. Overall, countries and policy fields do not make a difference. Only in special cases, there are notable differences, once we use a relative measure of influence and control for situational effects. Regarding policy fields, it can be noted that – when leaving out influential outliers – business interests are exercising more influence in an established environment.

Resources do not have a substantially or statistically significant effect.
This study yields some interesting results, on which to elaborate would be worthwhile:

- The Olsonian hypothesis cannot be confirmed.
- The proportion of actors with similar interests emerged as a major explanatory variable.

It must also be noted, that studies using the same data, which determined the dependent variable, the initial national position and the categorization of actor groups differently, came to other conclusions. The Olsonian hypothesis has been confirmed, in a study focusing on the cases, in which there is a change in the national position\textsuperscript{143}. Also, one study on Finland found a clear relationship between resources and influence\textsuperscript{144}, yet another for Germany found none\textsuperscript{145}. Unfortunately, due to the scope of this study, the reasons for these interesting results and the different findings cannot be examined here in more detail.

Hopefully, this study has prepared the grounds for further, more refined investigations.

\textsuperscript{142} König/Schneider 2002: cf. König/Pöter 2001
\textsuperscript{143} Schneider/Baltz 2002
\textsuperscript{144} Weltin 2000
\textsuperscript{145} Negendanck 2001
Appendix A – Codebook (excerpt)

**ms: member state**

1 = Germany (ger), 2 = Netherlands (nth), 3 = Finland (fin), 4 = UK (uk)

**np: national position in the Council of Ministers (at the start of international negotiations)**

‘When the negotiations in the Council of Ministers start, the representative of the government expresses the member state’s position. Please indicate this position on the issue continuum ranging from 0 to 100.’

**ip: initial position of the ministry in charge of domestic negotiations (‘federfuehrendes Ministerium’)**

Note that the position of the ministry in charge is also included among the positions of stakeholders (=> pos)

**pos: positions of stakeholders**

‘The domestic stakeholders favour different outcomes regarding these issues. For each of these issues I would like you to indicate the policy alternative initially favoured by each stakeholder before the government presents its position in the Council of Ministers. Regarding issue No. which stakeholders take the most extreme initial positions after the introduction of the proposal? These stakeholders are placed at the ends of the issue continuum (which may have the scores of 0 and 100). Please locate the policy alternatives initially favoured by the other stakeholders on the policy scale.’

**actr: labels of the stakeholders (‘actors’) interested in the negotiations**

(=> country codebooks)

Note that only those with a position are included i.e. those present at negotiations but with no opinion on the issue are excluded

**acttrak: actor groups**

10000-19999 State Actors (SA)

All state actors begin with a 1; the second and third digit denote the policy area (e.g. 01 for justice, 02 for finance, 03 for labour etc; ministries always end on 00; committees, institutes etc never end on zero)

30000-39999 Interest groups: Labour, Consumers, Environment, Social Affairs (LCE)

All interest groups representing labour, consumers, environment begin with a 3; the second and third digit denote the policy area (same policy area codes as for the ministries: 02 for finance, 07 for environment, 08 for health, 12 for social affairs); the last two digits have no special significance

50000-59999 Interest groups: Employers, Industry, Trade, Agriculture (EIA)

All interest groups representing employers, industry, trade, agriculture begin with a 5; the second and third digit denote the policy area (same policy area codes as for the ministries: 02 for finance, 04 for...
industry, 05 for communication, 06 for agriculture etc.); the last two digits have no special significance.

**70000-79999 Professions (P)**
all interest groups representing professionals (e.g. lawyers, medics etc) begin with a 7; the rest as above

**80000-89999 Non-state Research (NSR)**
as above

**90000-99999 Other (O)**
as above

**ov: overall value**

‘The aim of the proposal is particularly to [aim of proposal].
Stakeholders evaluate the overall utility of the proposed change of policy differently. More particularly, they compare it to the current state of affairs to assess the value of the proposal. Assume that the value of the proposal can be assessed on a scale from 0 to 100. The current state of affairs is situated at 0.
Please indicate the value of the proposal in comparison to the current state of affairs on the scale assuming that all expectations of the stakeholder will be met.’

**cap: capabilities of the stakeholders**

Within the policy domain (specify domain) the different stakeholders have different capabilities or amounts of potential to influence decision outcomes. This ability is based on a number of different resources: for example, the formal authority to take decisions, financial resources, information, access to other important stakeholders, leadership of a large number of people etc.
Please indicate the capabilities of each stakeholder on a scale from 0 to 100.

**info: informational power of stakeholders**

Stakeholders can also differ from each other regarding the amount of information they possess within a policy field.
Please assign a score of 100 to the stakeholder/s that hold/s most information in the policy field (specify policy field). Compared to this stakeholder, how would you rank each other stakeholders in terms of the amount of information it holds within this policy field?

**Actor types (dummy variables)**

<table>
<thead>
<tr>
<th>State Actors</th>
<th>Societal Actors</th>
</tr>
</thead>
<tbody>
<tr>
<td>ldm= leading ministry</td>
<td>lce_gen=general consumer interests</td>
</tr>
<tr>
<td>om=other ministry</td>
<td>lce_spc=specialized consumer interests</td>
</tr>
<tr>
<td>agc=state agency</td>
<td>eia_gen=general producer interests</td>
</tr>
<tr>
<td>pa=parliament</td>
<td>eia_spc=specialized producer interests</td>
</tr>
<tr>
<td>oth=other societal actors</td>
<td>oth=other societal actors (e.g., professional associations)</td>
</tr>
</tbody>
</table>
Policy fields (dummy variables)

env=environment
tax=taxation
fnc=finances
cmp=competition
jud=judiciary
agr=agriculture
imt=internal market
lab=labour
cns=consumer protection

Plfdnew=new policy fields (environment, consumer protection, labour, judiciary)

npstar: hypothetical national position

uch_abs: absolute utility change
<table>
<thead>
<tr>
<th>Nr</th>
<th>COM-Nr.</th>
<th>Name</th>
<th>Policy field</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>COM(97)358</td>
<td>end-of-life vehicles</td>
<td>Environment</td>
</tr>
<tr>
<td>2</td>
<td>COM(98)295</td>
<td>Prop. for a Council dir. to ensure a minimum of effective taxation of savings income in the form of interest payments within the Community</td>
<td>Taxation</td>
</tr>
<tr>
<td>3</td>
<td>COM(98)320/1</td>
<td>Prop. for a Council dir. amending directive 92/97/EEC on the approximation of taxes on cigarettes, directive 92/80/EEC on the approximation of taxes on manufactured tobacco other cigarettes and directive 95/59/EC on taxes other than turnover taxes which affect the consumption of manufactured tobacco</td>
<td>Taxation</td>
</tr>
<tr>
<td>4</td>
<td>COM(98)461/1 COM(98)461/2</td>
<td>Prop. for an EP and Council dir. on the taking up, the pursuit and the prudential supervision of the business of electronic money institutions</td>
<td>Finances</td>
</tr>
<tr>
<td>5</td>
<td>COM(98)546 (final)</td>
<td>Prop. for a Council reg. (EC) amending reg. nr. 19: first reg. implementing articles 85(3) of the treaty (internal market)</td>
<td>Competition</td>
</tr>
<tr>
<td>6</td>
<td>COM(98)586</td>
<td>Prop. for an EP and Council dir. on certain legal aspects of electronic commerce in the internal market</td>
<td>Judiciary</td>
</tr>
<tr>
<td>7</td>
<td>COM(98)623/1 COM(98)623/2</td>
<td>Prop. for an EP and Council reg. laying down rules for the prevention and control of certain transmissible spongiform encephalopathies, TSE (treated as one proposal)</td>
<td>Agriculture</td>
</tr>
<tr>
<td>8</td>
<td>COM(99)260</td>
<td>Prop. for a reg.: establishment of Eurodac system</td>
<td>Internal Market</td>
</tr>
<tr>
<td>9</td>
<td>COM(99)345</td>
<td>control measures applicable to the north-east Atlantic fisheries</td>
<td>Agriculture</td>
</tr>
<tr>
<td>10</td>
<td>COM(99)348</td>
<td>reg.: jurisdiction and the recognition and enforcement of judgements in civil and commercial matters</td>
<td>Judiciary</td>
</tr>
<tr>
<td>11</td>
<td>COM(99)382</td>
<td>Prop. for a reg.: closer dialogue with the fishing industry and groups affected by the common fisheries policy</td>
<td>Agriculture</td>
</tr>
<tr>
<td>12</td>
<td>COM(99)456</td>
<td>Prop. for a dir. amending Dir. 64/432/EEC: health problems affecting intra-Community trade in bovine animals and swine</td>
<td>Agriculture</td>
</tr>
<tr>
<td>13</td>
<td>COM(99)565, COM(99)566, COM(99)567</td>
<td>Prop. for a dir.: establishing a general framework for equal treatment in employment and occupation and the related Prop. for a dir.: introduction of the principle of equal treatment without distinction as to race or ethnic origin and the related Prop. for a dec.: Community action programme to combat discrimination (2001-06)</td>
<td>Labour</td>
</tr>
<tr>
<td>14</td>
<td>COM(99)577</td>
<td>Prop for a dir.: amending Dir. 76/769/EEC: toys made of plasticised PVC containing phthalates</td>
<td>Consumer protection</td>
</tr>
<tr>
<td>15</td>
<td>COM(99)130</td>
<td>Prop. for a Council. reg. (EC) amending reg. (EEC) no 2377/90 laying down a community procedure for the establishment of maximum residue limits of veterinary medicinal products in foodstuffs of animal origin</td>
<td>Agriculture</td>
</tr>
</tbody>
</table>
Appendix C – STATA Do-file

clear

cd c:/windows/desktop/m.a.-arbeit

use master.dta

drop fin

drop v20

drop deu

drop nl

drop gb

lab def ms 1 "Germany" 2 "Netherlands" 3 "Finland" 4 "United Kingdom"

lab def polfelno 1 "Environment" 2 "Taxation" 3 "Finances" 4 "Competition"

5 "Judiciary" 6 "Agriculture" 7 "Internal" 8 "Labour" 9 "Consumer"

* Coding of policy fields

generate env=1 if polfelno==1

generate tax=1 if polfelno==2

generate fnc=1 if polfelno==3

generate cmp=1 if polfelno==4

generate jud=1 if polfelno==5

generate agr=1 if polfelno==6

generate imt=1 if polfelno==7

generate lab=1 if polfelno==8

generate cns=1 if polfelno==9

replace env=0 if env==.

replace tax=0 if tax==.

replace fnc=0 if fnc==.

replace cmp=0 if cmp==.

replace jud=0 if jud==.

replace agr=0 if agr==.

replace lab=0 if lab==.

replace cns=0 if cns==.

replace imt=0 if imt==.

gen plfdnew=1 if env==1 | cns==1 | lab==1 | jud==1

gen plfddold=1 if cmp==1 | tax==1 | fnc==1 | agr==1 | imt==1

replace plfddold=0 if plfddold==.

replace plfdnew=0 if plfdnew==.

* Recoding Group variables (Dummy variables)

* EIA=1 for Employers, Industry, Trade, Agriculture

* LCE=1 for Labour, Consumer, Environment

* OTH=1 for other non-state actors

* SOC=1 for societal actors

* SA=1 for State Actors (leading ministry, other Ministries, Parliaments)

* OM=1 for other ministries

* AGC=1 for non-ministerial state actors

* PA=1 for Parliament

generate eia=1 if acttrak=="EIA"

replace eia=0 if eia==.

generate lce=1 if acttrak=="LCE"

replace lce=0 if lce==.

generate sa=1 if acttrak=="SA"

replace sa=0 if sa==.

generate oth=1 if (sa==0) & (eia==0) & (lce==0)

replace oth=0 if oth==.

generate soc=1 if (lce==1) | (eia==1) | (oth==1)

replace soc=0 if soc==.

gen ldm=1 if leadmin==1

replace ldm=0 if ldm==.

gen pa=1 if actr==10000

replace pa=0 if pa==.

generate om=1 if (actr>=10100) & (actr<12000) & leadmin==0

replace om=0 if om==.

* om includes SA, which are not actually ministries (e.g., agencies)

* These are now excluded
replace om=0 if aklabell="Si" | aklabell="Sr" | aklabell="Se" |
        aklabell="Sa"
replace om=0 if aklabell="Sh" | aklabell="Sl" | aklabell="Sp" |
        aklabell="Sv"
replace om=0 if aklabell="Ss" | aklabell="Sd" | aklabell="So" |
        aklabell="Sx"
replace om=0 if aklabell="SA" | aklabell="SO" | aklabell="Sx" |
        aklabell="Sm"
* 66 recodings took place, there are now 104 other ministries
* Frequencies
* LCE:69 EIA:276 SA:360 om=104 pa:26
* Generating new Variable for Actor groups (differentiating among state
        actors)
generate agc=1 if (sa==1) & (pa==0) & (om==0) & (leadmin==0)
replace agc=0 if agc==.
* oth includes state actor - these are now recoded
replace oth=0 if actr==90301
replace agc=1 if actr==90301
replace oth=0 if actr==91001
replace agc=1 if actr==91001
replace oth=0 if actr==91002
replace agc=1 if actr==91002
replace oth=0 if actr==91003
replace agc=1 if actr==91003
gen eia_gen=1 if imppi==
replace eia_gen=0 if eia_gen==.
gen eia_spc=1 if norpi==
replace eia_spc=0 if eia_spc==.
gen lce_gen=1 if impconi==
replace lce_gen=0 if lce_gen==.
gen lce_spc=1 if noconi==
* Controlling actor group categorization
gen act=leadmin+agc+om+pa+lce_gen+lce_spc+eia_gen+eia_spc+oth
replace lce_spc=0 if lce_spc==.
replace oth=0 if actr==50101
replace oth=0 if actr==50208
replace oth=0 if actr==31209
replace oth=0 if actr==91002
replace oth=0 if actr==70601
replace oth=0 if actr==70101
replace oth=1 if laufnum_==211
replace oth=1 if laufnum_==213
replace oth=1 if laufnum_==212
replace agc=0 if laufnum_==604
replace agc=0 if laufnum_==605
replace agc=0 if laufnum_==513
replace agc=0 if laufnum_==514
replace agc=0 if laufnum_==512
replace lce_spc=0 if laufnum_==511
replace lce_spc=0 if laufnum_==510
replace oth=1 if laufnum_==536
replace oth=1 if laufnum_==714
replace oth=1 if laufnum_==713
replace oth=1 if laufnum_==715
replace oth=1 if laufnum_==697
* 
* Generating actor group variable (actgr)
* 1 LEADMN==1 (leading ministries)
* 2 OM==1 (other ministries)
* 3 AGC==1 (non-ministerial state actors)
* 4 PA==1 (Parliament)
* 5 LCE_GEN==1 (Labour, Consumer, Environment - general)
* 6 LCE_SPC==1 (Labour, Consumer, Environment - specialized)
* 7 EIA_GEN==1 (Employers, Industry, Trade, Agriculture - general)
* 8 EIA_SPC==1 (Employers, Industry, Trade, Agriculture - specialized)
* 9 OTH==1 (other non-state actors, e.g. professional associations, foreign companies, ...)

* gen actrgr=1*leadmin+2*om+3*agc+4*pa+5*lce_gen+6*lce_spc+7*eia_gen+8*eia_spc+9*oth
label variable actrgr "actor type"
label define actrgrlb 1 "LDM" 2 "OM" 3 "AGC" 4 "PA" 5 "LCE_GEN" 6 "LCE_SPC" 7 "EIA_GEN" 8 "EIA_SPC" 9 "OTH"
label values actrgr actrgrlb

* Calculating npstar (hypothetical group position of relevant state actors)
* generate m_pos=pos if leadmin==1 | om==1
generate pa_pos=pos if pa==1
sort isscode
egen npstar=median(m_pos), by(isscode)
* pa_pos for data records of non-parliamentary actors is created
egen tpa_pos=mean(pa_pos) if (isscode="3/98295/1") | (isscode="3/98295/2") | (isscode="3/98461/1") | (isscode="3/99566/1") | (isscode="3/99566/2") | (isscode="3/99566/2")
replace npstar=((npstar+tpa_pos)/2) if (isscode="3/98295/1") | (isscode="3/98295/2") | (isscode="3/98461/1") | (isscode="3/99566/1") | (isscode="3/99566/2")

* Calculating change in national position (on issue level)
gen d_ipnp=abs(ip-np) if leadmin==1
gen d_npsnp=abs(npstar-np) if leadmin==1
* Calculating the spread of state actors positions around npstar
gen stat_sp=abs(npstar-pos) if leadmin==1 | om==1
gen stat_sp2=abs(npstar-pos) if leadmin==1 | om==1 | pa==1
*
* Calculating the relative change
* to actor position |(pos-nps)|-|(pos-np)|/(pos-nps|
gen d_psnps=abs(pos - npstar)
gen d_psnp=abs(pos - np)
gen uch_rel=(d_psnps - d_psnp)/d_psnps
* 310 missings due to d_psnps=0
*
* Preparing descriptive statistics
*
* Average frequency of Actor types
sort isscode
egen lce_ct=sum(lce), by(isscode)
egen eia_ct=sum(eia), by(isscode)
egen om_ct=sum(om), by(isscode)
egen oth_ct=sum(oth), by(isscode)
egen agc_ct=sum(agc), by(isscode)
egen pa_ct=sum(pa), by(isscode)
*
* Change of national position
gen shiftnp=np-npstar
*
* Preparing multivariate regression
*
* coding dummy-variables for country
gen ger=1 if ms==1
replace ger=0 if ger==.
gen nth=1 if ms==2
replace nth=0 if nth==.
gen fin=1 if ms==3
replace fin=0 if fin==.
gen uk=1 if ms==4
replace uk=0 if uk==.
gen omnth=om*nth
gen omger=om*ger
gen omfin=om*fin
gen agcnth=agc*nth
gen agcger=agc*ger
gen agcfin=agc*fin
gen panth=pa*nth
gen pager=pa*ger
gen pafin=pa*fin
gen lcegnth=lce_gen*nth
gen lcegger=lce_gen*ger
gen lcegfin=lce_gen*fin
gen lcesnth=lce_spc*nth
gen lcesger=lce_spc*ger
gen lcesfin=lce_spc*fin
gen eiagnth=eia_gen*nth
gen eiagger=eia_gen*ger
gen eiaisnth=eia_spc*nth
gen eiasger=eia_spc*ger
gen eiasfin=eia_spc*fin
gen othnth=oth*nth
gen othger=oth*ger
gen othfin=oth*fin
gen omplfdn=om*plfdnew
gen agcplfdn=agc*plfdnew
gen paplfdn=pa*plfdnew
gen lcgplfdn=lce_gen*plfdnew
gen lcsplfdn=lce_spc*plfdnew
gen eigplfdn=eia_gen*plfdnew
gen eiisplfdn=eia_spc*plfdnew
gen othplfdn=oth*plfdnew
*
* Calculating the absolute utility change/influence of an individual actor
*
generate uch_abs=(abs(npstar-pos))-(abs(np-pos))
*
* Calculating structural indices
*
* Index for number of individual actors with similar interests
gen ps_l=1 if pos<npstar
gen ps_r=1 if pos>npstar
gen ps_0=1 if pos==npstar
replace ps_l=0 if ps_l==.
replace ps_r=0 if ps_r==.
replace ps_0=0 if ps_0==.
sort isscode
egen bc_pl=sum(ps_l), by(isscode)
egen bc_pr=sum(ps_r), by(isscode)
egen bc_p0=sum(ps_0), by(isscode)
gen i_bc=bc_pl/(bc_pl+bc_pr+bc_p0) if ps_l==1
replace i_bc=bc_pr/(bc_pl+bc_pr+bc_p0) if ps_r==1
replace i_bc=bc_p0/(bc_pl+bc_pr+bc_p0) if ps_0==1
* Index for closeness to overall position of individual actors
gen l_pos=pos if ps_l==1
gen r_pos=pos if ps_r==1
gen n_pos=pos if ps_0==1
sort isscode
egen i_gmpl=mean(l_pos) if ps_l==1, by(isscode)
egen i_gmpr=mean(r_pos) if ps_r==1, by(isscode)
egen i_gmp0=mean(n_pos) if ps_0==1, by(isscode)
gen i_gmp=i_gmpl if ps_l==1
replace i_gmp=i_gmpr if ps_r==1
replace i_gmp=i_gmp0 if ps_0==1
gen i_gpos=abs(i_gmp-pos)
* Index for homogeneity
sort isscode
egen i_lsd=sd(l_pos) if ps_l==1
egen i_rsd=sd(r_pos) if ps_r==1
egen i_nsd=sd(n_pos) if ps_0==1
gen i_sd=i_lsd if ps_l==1
replace i_sd=i_rsd if ps_r==1
replace i_sd=i_nsd if ps_0==1
* Index for group count
sort isscode
gen i_gbc=lce_ct/(lce_ct+eia_ct+oth_ct) if lce==1
replace i_gbc=eia_ct/(lce_ct+eia_ct+oth_ct) if eia==1
replace i_gbc=oth_ct/(lce_ct+eia_ct+oth_ct) if oth==1
replace i_gbc=om_ct/(om_ct+pa_ct+agc_ct) if om==1
replace i_gbc=agc_ct/(om_ct+pa_ct+agc_ct) if agc==1
replace i_gbc=pa_ct/(om_ct+pa_ct+agc_ct) if pa==1
* * Control variable - initial distance
gen d_npsps=abs(npstar-pos)
* Logarithmic transformation of RES
gen lg_cap=log(cap)
gen lg_info=log(info)
* Coding interaction with RES
gen lgc_gps=lg_cap*i_gpos
gen lgc_sd=lg_cap*i_sd
gen lgc_bc=lg_cap*i_bc
gen lgc_nth=lg_cap*nth
gen lgc_fin=lg_cap*fin
gen lgc_ger=lg_cap*ger
gen lgc_sa=lg_cap*sa
gen lgc_eia=lg_cap*eia
gen lgc_lce=lg_cap*lce
gen lgc_oth=lg_cap*oth
gen lgc_plfn=lg_cap*plfdnew
* Boxplot comparing mean utility change between groups
gen lce_ucha=uch_abs if lce==1
gen eia_ucha=uch_abs if eia==1
gen soc_ucha=uch_abs if soc==1
sort isscode
egen lce_muca=mean(lce_ucha), by(isscode)
egen eia_muca=mean(eia_ucha), by(isscode)
egen soc_muca=mean(soc_ucha), by(isscode)
gen dif_muca=lce_muca-eia_muca
* gen dnpsn_m=nps if nps>50
replace dnpsn_p=100-nps if nps<50
gen d_mpsnps=abs(pos-nps) if leadmin==1 | om==1
* * Checking coding - Controlling for different operationalization
gen uch_ip=(abs(pos-ip)-abs(pos-np))
sort isscode
egen med=median(pos), by(isscode)
regress uch_ip med lce_gen lce_spc eia_gen eia_spc oth nth ger fin if np~=ip
* *
79
* DATA ANALYSIS
*
* set matsize 100
*
* Hypothesis 1
*
* Change of national position (npstar/ip to np)
tab d_npsnp
sum d_npsnp, detail
label variable d_npsnp "|np*-np|
graph d_npsnp, t1title ("Change in national position (|np*-np|)") bin(20)
xtick xlabel (0, 5 to 100)
label variable d_ipnp "|ip-np|
sort nps
graph nps

label variable dp_npsnp "|np*-np|/max(|np*-np|)*100"
graph dp_npsnp, t1title ("Change in national position relative to maximum change possible (%)") bin(20) xtick xlabel (0, 5 to 100) ylabel (0, .1 to .5)
sort dp_npsnp
graph d_ipnp, t1title ("Difference of national position and leading ministry (|ip-np|)") bin(20) xtick xlabel (0, 5 to 100)
sort actrgr

group uch_abs, bar by(actrgr) mean title("Average absolute utility change across actor groups")ytitle

group uch_abs, box by(actrgr) title("Differences in absolute utility change across actor groups")ytitle ylabel yline(0)
* 
*
* Relative utility change by actor type for country and policy field
*
* If interest groups do have influence, their relative utility change should be larger
* than the one from state actors.
sort ms
by ms: sum uch_rel if leadmin==1
by ms: sum uch_rel if om==1
by ms: sum uch_rel if agc==1
by ms: sum uch_rel if pa==1
by ms: sum uch_rel if lce_gen==1
by ms: sum uch_rel if lce_spc==1
by ms: sum uch_rel if eia_gen==1
by ms: sum uch_rel if eia_spc==1
by ms: sum uch_rel if oth==1
by ms: sum uch_rel if leadmin==1 | eia_spc==1 | eia_gen==1 | lce_spc==1 | lce_gen==1
by ms: sum uch_rel if leadmin==1 | om==1 | agc==1 | pa==1
sum uch_rel if leadmin==1 | eia_spc==1 | eia_gen==1 | lce_spc==1 | lce_gen==1
sort plfdnew
by plfdnew: sum uch_rel if leadmin==1
by plfdnew: sum uch_rel if om==1
by plfdnew: sum uch_rel if agc==1
by plfdnew: sum uch_rel if pa==1
by plfdnew: sum uch_rel if lce_gen==1
by plfdnew: sum uch_rel if lce_spc==1
by plfdnew: sum uch_rel if eia_gen==1
by plfdnew: sum uch_rel if eia_spc==1
by plfdnew: sum uch_rel if oth==1
by plfdnew: sum uch_rel if oth==1 | eia_spc==1 | eia_gen==1 | lce_spc==1
lce_gen==1
by plfdnew: sum uch_rel if leadmin==1 | om==1 | agc==1 | pa==1
*
* Hypothesis 2 (systems of interest intermediation)
*
sort ms
by ms: sum uch_abs if leadmin==1
by ms: sum uch_abs if om==1
by ms: sum uch_abs if agc==1
by ms: sum uch_abs if pa==1
by ms: sum uch_abs if lce_gen==1
by ms: sum uch_abs if lce_spc==1
by ms: sum uch_abs if eia_gen==1
by ms: sum uch_abs if eia_spc==1
by ms: sum uch_abs if oth==1
by ms: sum uch_abs if oth==1 | eia_spc==1 | eia_gen==1 | lce_spc==1
lce_gen==1
by ms: sum uch_abs if leadmin==1 | om==1 | agc==1 | pa==1
sum uch_abs if oth==1 | eia_spc==1 | eia_gen==1 | lce_spc==1 | lce_gen==1
sum uch_abs if leadmin==1 | om==1 | agc==1 | pa==1
sort ms
by ms: sum d_psnps if leadmin==1
by ms: sum d_psnps if om==1
by ms: sum d_psnps if agc==1
by ms: sum d_psnps if pa==1
by ms: sum d_psnps if lce_gen==1
by ms: sum d_psnps if lce_spc==1
by ms: sum d_psnps if eia_gen==1
by ms: sum d_psnps if eia_spc==1
by ms: sum d_psnps if oth==1
sum d_psnps if oth==1 | eia_spc==1 | eia_gen==1 | lce_spc==1 | lce_gen==1
sum d_psnps if leadmin==1 | om==1 | agc==1 | pa==1
tab actrgr ms, column
sort actrgr
graph uch_abs if ms==1, box by(actrgr) title("Absolute utility change across actor groups in Germany") ytick ylabel yline(0)
graph uch_abs if ms==2, box by(actrgr) title("Absolute utility change across actor groups in Netherlands") ytick ylabel yline(0)
graph uch_abs if ms==3, box by(actrgr) title("Absolute utility change across actor groups in Finland") ytick ylabel yline(0)
graph uch_abs if ms==4, box by(actrgr) title("Absolute utility change across actor groups in Great Britain") ytick ylabel yline(0)
*
* Hypothesis 3 (policy field)
*
sort actrgr
graph uch_abs if plfdnew==0, box by(actrgr) title("Absolute utility change across actor groups in old policies") ytick ylabel yline(0)
graph uch_abs if plfdnew==1, box by(actrgr) title("Absolute utility change across actor groups in new policies") ytick ylabel yline(0)
sort plfdnew
tab actrgr plfdnew
by plfdnew: sum uch_abs if leadmin==1
by plfdnew: sum uch_abs if om==1
by plfdnew: sum uch_abs if agc==1
by plfdnew: sum uch_abs if pa==1

* Hypothesis 2 (systems of interest intermediation)
* Hypothesis 3 (policy field)
by plfdnew: sum uch_abs if lce_gen==1
by plfdnew: sum uch_abs if lce_spc==1
by plfdnew: sum uch_abs if eia_gen==1
by plfdnew: sum uch_abs if eia_spc==1
by plfdnew: sum uch_abs if oth==1
by plfdnew: sum uch_abs if oth==1 | eia_spc==1 | eia_gen==1 | lce_spc==1| lce_gen==1
by plfdnew: sum uch_abs if leadmin==1 | om==1 | agc==1 | pa==1
sort plfdnew
by plfdnew: sum d_psnps if leadmin==1
by plfdnew: sum d_psnps if om==1
by plfdnew: sum d_psnps if agc==1
by plfdnew: sum d_psnps if pa==1
by plfdnew: sum d_psnps if lce_gen==1
by plfdnew: sum d_psnps if lce_spc==1
by plfdnew: sum d_psnps if eia_gen==1
by plfdnew: sum d_psnps if eia_spc==1
by plfdnew: sum d_psnps if oth==1
* Hypothesis 4 (resources)
*
* graph uch_abs cap, xtick ytick ylabel(-100, -90 to 100) xlabel(0, 10 to 100) yline(0) s([actrgr]) title("Absolute Utility Change and Capabilities") btitle("Capabilities") ltitle("Absolute utility change")
* graph uch_abs info, xtick ytick ylabel(-100, -90 to 100) xlabel(0, 10 to 100) yline(0) s([actrgr]) title("Absolute Utility Change and Information") btitle("Information") ltitle("Absolute utility change")
spearman uch_abs cap
ktau uch_abs cap
spearman uch_abs info
ktau uch_abs info
sort actrgr
graph cap info, box by(actrgr) title("Differences in reputational power across actor groups") tltitle("1. boxplot=capabilities; 2. boxplot=information") ytick ylabel yline(50)
graph uch_abs, box by(actrgr) title("Absolute utility change across actor groups") ytick ylabel yline(0)
*
*
* Anova
anova uch_abs actrgr ms actrgr*ms
anova uch_abs actrgr plfdnew actrgr*plfdnew
anova uch_abs actrgr ms actrgr*ms plfdnew actrgr*plfdnew
*
* Ancova
anova uch_abs actrgr ms actrgr*ms d_npsps i_gpos i_bc i_sd ov, continuous(d_npsps i_gpos i_bc i_sd ov)
anova uch_abs actrgr plfdnew actrgr*plfdnew d_npsps i_gpos i_bc i_sd ov, continuous(d_npsps i_gpos i_bc i_sd ov)
anova uch_abs actrgr ms actrgr*ms plfdnew actrgr*plfdnew d_npsps i_gpos i_bc i_sd ov lg_cap, continuous(d_npsps i_gpos i_bc i_sd ov lg_cap)
anova uch_abs actrgr ms actrgr*ms plfdnew actrgr*plfdnew d_npsps i_gpos i_bc i_sd ov cap, continuous(d_npsps i_gpos i_bc i_sd ov cap)
anova uch_abs actrgr ms actrgr*ms plfdnew actrgr*plfdnew d_npsps i_gpos i_bc i_sd ov lg_info, continuous(d_npsps i_gpos i_bc i_sd ov lg_info)
anova uch_abs actrgr ms actrgr*ms plfdnew actrgr*plfdnew d_npsps i_gpos i_bc i_sd ov info, continuous(d_npsps i_gpos i_bc i_sd ov info)
* *
* Multiple regression
* *
* Model 0
regress uch_abs d_npsps
cd c:\windows\desktop\m.a.-arbeit\resultate
outreg using model0_II, adj se
* Model 1
regress uch_abs d_npsps i_gpos i_bc i_sd
testparm i_gpos i_bc i_sd
outreg using model1_II, adj se
* Model 2
regress uch_abs d_npsps om agc pa lce_gen lce_spc eia_gen eia_spc oth
testparm om agc pa lce_gen lce_spc eia_gen eia_spc oth
outreg using model2_II, adj se
* Model 3
regress uch_abs d_npsps nth ger fin
testparm nth ger fin
outreg using model3_II, adj se
* Model 4
regress uch_abs d_npsps plfdnew
testparm plfdnew
outreg using model4_II, adj se
* Model 5
regress uch_abs d_npsps lg_cap
testparm lg_cap
outreg using model5_II, adj se
* Model 6
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
 eia_spc oth nth ger fin plfdnew lg_cap ov
testparm i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth
 nth ger fin plfdnew lg_cap ov
outreg using model6_II, adj se
* Model 6 - changing reference group of actor types
regress uch_abs d_npsps i_gpos i_bc i_sd ldm agc pa lce_gen lce_spc
 eia_gen eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6om_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd ldm om pa lce_gen lce_spc eia_gen
 eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6agc_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd ldm om agc lce_gen lce_spc
 eia_gen eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6pa_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd ldm om agc pa lce_spc eia_gen
 eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6lcg_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd ldm om agc pa lce_gen lce_spc
 eia_gen eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6lcs_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd ldm om agc pa lce_gen lce_spc
 eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6eig_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd ldm om agc pa lce_gen lce_spc
 eia_gen eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6eis_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd ldm om agc pa lce_gen lce_spc
 eia_gen eia_spc oth nth ger fin plfdnew lg_cap ov
outreg using model6oth_II, adj se
* Model 6 - changing reference group of country
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
 eia_spc oth uk ger fin plfdnew lg_cap ov
outreg using model6nth_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
 eia_spc oth uk nth fin plfdnew lg_cap ov
outreg using model6ger_II, adj se
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
 eia_spc oth uk nth ger plfdnew lg_cap ov
outreg using model6fin_II, adj se

* Model 6 - Different Measurements of Resources

regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov lg_cap
regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov cap
regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov lg_info
regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov info

* Model 7

regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew omnth omger omfin agcnth agcger acgcfin panth pager pain lcegen lcegen lcesfin eiaasnth eiasnth eias shrimp otshere otsher otshet otshet lg_cap ov
outreg using model7_II, adj se
testparm omnth omger omfin agcnth agcger acgcfin panth pager pain lcegen lcegen lcesfin eiaasnth eias shrimp otshere otsher otshet otshet lg_cap ov
regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew omnth omger omfin agcnth agcger acgcfin panth pager pain lcegen lcegen lcesfin eiaasnth eias shrimp otshere otsher otshet otshet lg_cap ov

* Model 8

regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew omplfdn agcplfdn paplfdn lcgplfdn lcsplfdn eigrplfdn eislplfdn othplfdn lg_cap ov
outreg using m8.out, adj se
testparm omplfdn agcplfdn paplfdn lcgplfdn lcsplfdn eigrplfdn eislplfdn othplfdn
testparm i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew omplfdn agcplfdn paplfdn lcgplfdn lcsplfdn eigrplfdn eislplfdn othplfdn

* Regression diagnostics - Model 6

* regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov lg_cap ov
lvr2plot, s([laufnum_]) ytick ylabel
predict dfits6, dfits
predict cooksd6 if e(sample), cooksd
list laufnum_ dfits6 cooks6 if (dfits6>2*sqrt(19/753)) & (cooks6>4/753) & (cooks6=-+)
generate outlier6=1 if laufnum_==530 | laufnum_==383 | laufnum_==108 | laufnum_==122 | laufnum_==391 | laufnum_==107 | laufnum_==113 | laufnum_==601 | laufnum_==338 | laufnum_==112 | laufnum_==294 | laufnum_==511 | laufnum_==742 | laufnum_==435 | laufnum_==118 | laufnum_==121 | laufnum_==586 | laufnum_==539
replace outlier6=0 if outlier6==.
regress uch_abs outlier6 d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov lg_cap ov
vif
pwcorr uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov lg_cap ov
regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov cap
rvfplot, yline(0) ytick ylabel
hettest
regress uch_abs d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov cap
outreg using m6.out
regress uch_abs outlier6 d_nbpsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen eia_spc oth nth ger fin plfdnew ov cap

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outreg using m6outl.out
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth nth ger fin plfdnew lg_cap ov if outlier==0
outreg using m6noo.out
*
* Single Estimations for combined model
*
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth lg_cap ov if nth==1
outreg using m6_nth, se adjr2
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth lg_cap ov if ger==1
outreg using m6_ger, se adjr2
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth lg_cap ov if fin==1
outreg using m6_fin, se adjr2
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth lg_cap ov if uk==1
outreg using m6_uk, se adjr2
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth lg_cap ov if plfdnew==0
outreg using m6_old, se adjr2
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth lg_cap ov if plfdnew==1
outreg using m6_new, se adjr2
*
* Regression diagnostics - Model 7
*
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth nth ger fin plfdnew omnth omger omfin agcnth agcger agcfinn
panth pager pafin lcegnth lcegger lcegfin lcesth nth othger othfin lg_cap ov
lvr2plot, s([laufnum_]) ytick ylabel
predict dfits7, dfits
predict cooksd7 if e(sample), cooksd
list laufnum_ dfits7 cooksd7 if (dfits7>2*sqrt(43/753)) & (cooks7>4/753) &
(cooks7==.)
generate outlier7=1 if laufnum==530 | laufnum==383 | laufnum==624 |
laufnum==113 | laufnum==541 | laufnum==294 | laufnum==742 |
laufnum==688 | laufnum==226 | laufnum==595 | laufnum==222 |
laufnum==338 | laufnum==511 | laufnum==547 | laufnum==215 |
laufnum==539 | laufnum==112
replace outlier7=0 if outlier7==.
regress uch_abs outlier7 d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc
eia_gen eia_spc oth nth ger fin plfdnew omnth omger omfin agcnth agcger
agcfinn panth pager pafin lcegnth lcegger lcegfin lcesth nth othger othfin lg_cap ov
vif
pwcorr uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth nth ger fin plfdnew omnth omger omfin agcnth agcger agcfinn
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth nth ger fin plfdnew omnth omger omfin agcnth agcger agcfinn
panth pager pafin lcegnth lcegger lcegfin lcesth nth othger othfin lg_cap ov
rvfplot, yline(0) ytick ylabel
hettest
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spc eia_gen
eia_spc oth nth ger fin plfdnew omnth omger omfin agcnth agcger agcfinn
panth pager pafin lcegnth lcegger lcegfin lcesth nth othger othfin lg_cap ov
outreg using m7.out, se adjr2
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spceia_gen
eia_spcoth nth ger fin plfdnew omplfdn agcplfdn paplfdn lcgplfdnlcsplfdneigplfdneisplfdnothplfdnlg_capov
rvfplot, yline(0) ytick ylabel
hettest
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spceia_gen
eia_spcoth nth ger fin plfdnew omplfdn agcplfdn paplfdn lcgplfdnlcsplfdneigplfdneisplfdnothplfdnlg_capov
lvr2plot, s([laufnum_]) ytick ylabel
predict dfits8, dfits
predict cooks8 if e(sample), cooks8
list laufnum_, dfits8 cooks8 if (dfits8>2*sqrt(43/753)) & (cooks8>4/753) &
replace outlier8=0 if outlier8==.
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spceia_gen
eia_spcoth nth ger fin plfdnew omplfdn agcplfdn paplfdn lcgplfdnlcsplfdneigplfdneisplfdnothplfdnlg_capov
outreg using m8noo.out, se adjr2
vif
pwcorr uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spceia_gen
eia_spcoth nth ger fin plfdnew omplfdn agcplfdn paplfdn lcgplfdnlcsplfdneigplfdneisplfdnothplfdnlg_capov
*  
  * Change
*  
regress uch_abs d_npsps i_gpos i_bc i_sd om agc pa lce_gen lce_spceia_gen
eia_spcoth nth ger fin plfdnew lg_capov if nps==np
outreg using m6ch.out, se adjr2
*
### Appendix D – Results of Regression Diagnostics (continued)

#### Table D1: Outlier (Models 7 and 8)

<table>
<thead>
<tr>
<th></th>
<th>Model 7</th>
<th></th>
<th>Model 8</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Model 7 and 8 – Main effects and control variables</strong></td>
<td><strong>No outlier</strong></td>
<td><strong>No outlier</strong></td>
<td></td>
<td></td>
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<tr>
<td><strong>Obs</strong></td>
<td>753</td>
<td>736</td>
<td>753</td>
<td>748</td>
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<tr>
<td><strong>Adj. R²</strong></td>
<td>0.24</td>
<td>0.24</td>
<td>0.23</td>
<td>0.22</td>
</tr>
<tr>
<td><strong>Constant</strong></td>
<td>-9.270</td>
<td>(8.915)</td>
<td>-15.418</td>
<td>(8.038)</td>
</tr>
<tr>
<td><strong>Initial distance to nat. pos.</strong></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>0.329</td>
<td>(0.035)**</td>
<td>0.318</td>
<td>(0.034)**</td>
</tr>
<tr>
<td><strong>Distance to group mean</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>0.054</td>
<td>(0.075)</td>
<td>0.060</td>
<td>(0.074)</td>
</tr>
<tr>
<td><strong>Group size</strong></td>
<td>12.214</td>
<td>(3.901)**</td>
<td>9.052</td>
<td>(4.025)*</td>
</tr>
<tr>
<td><strong>Group homogeneity</strong></td>
<td>0.026</td>
<td>(0.128)</td>
<td>0.010</td>
<td>(0.128)</td>
</tr>
<tr>
<td><strong>Other ministries</strong></td>
<td>-10.048</td>
<td>(8.013)</td>
<td>-9.750</td>
<td>(4.564)*</td>
</tr>
<tr>
<td><strong>Agencies</strong></td>
<td>-3.868</td>
<td>(5.142)</td>
<td>2.697</td>
<td>(3.729)</td>
</tr>
<tr>
<td><strong>Labour/Consumer/Environment – general</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-20.073</td>
<td>(10.096)*</td>
<td>-4.083</td>
<td>(7.877)</td>
</tr>
<tr>
<td><strong>Labour/Consumer/Environment – specialized</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-11.945</td>
<td>(7.344)</td>
<td>-10.973</td>
<td>(7.074)</td>
</tr>
<tr>
<td><strong>Environment/Industry/Agriculture – general</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-6.830</td>
<td>(5.950)</td>
<td>-5.889</td>
<td>(4.170)</td>
</tr>
<tr>
<td><strong>Environment/Industry/Agriculture – spec.</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>-17.733</td>
<td>(5.869)**</td>
<td>-1.590</td>
<td>(4.095)</td>
</tr>
<tr>
<td><strong>Other societal actors</strong></td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td></td>
<td>-10.388</td>
<td>(7.970)</td>
<td>-9.442</td>
<td>(5.530)</td>
</tr>
<tr>
<td><strong>The Netherlands</strong></td>
<td>-0.462</td>
<td>(5.234)</td>
<td>-2.800</td>
<td>(2.309)</td>
</tr>
<tr>
<td><strong>Germany</strong></td>
<td>-8.623</td>
<td>(5.653)</td>
<td>0.898</td>
<td>(2.429)</td>
</tr>
<tr>
<td><strong>Finland</strong></td>
<td>-8.068</td>
<td>(5.753)</td>
<td>0.042</td>
<td>(2.473)</td>
</tr>
<tr>
<td><strong>New policy fields</strong></td>
<td>-1.960</td>
<td>(1.774)</td>
<td>2.556</td>
<td>(3.904)</td>
</tr>
<tr>
<td><strong>Interaction effects</strong></td>
<td>Results on page 88</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>RS Capabilities, log.</strong></td>
<td></td>
<td></td>
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<tr>
<td></td>
<td>0.005</td>
<td>(1.248)</td>
<td>-0.083</td>
<td>(1.204)</td>
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<tr>
<td><strong>OV Overall value</strong></td>
<td>-0.016</td>
<td>(0.032)</td>
<td>-0.011</td>
<td>(0.031)</td>
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## Table D1 continued (Interaction effects)

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<th>State actors</th>
<th>No outlier</th>
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<tr>
<td>Other ministries, Netherlands</td>
<td>-5.244 (9.141)</td>
</tr>
<tr>
<td>Other ministries, Germany</td>
<td>7.039 (9.402)</td>
</tr>
<tr>
<td>Other ministries, Finland</td>
<td>0.027 (10.370)</td>
</tr>
<tr>
<td>Agencies, Netherlands</td>
<td>-1.863 (7.140)</td>
</tr>
<tr>
<td>Agencies, Germany</td>
<td>5.500 (7.566)</td>
</tr>
<tr>
<td>Agencies, Finland</td>
<td>13.742 (7.529)</td>
</tr>
<tr>
<td>Parliament, Netherlands</td>
<td>0.000 (0.000)**</td>
</tr>
<tr>
<td>Parliament, Germany</td>
<td>20.972 (11.459)</td>
</tr>
<tr>
<td>Parliament, Finland</td>
<td>15.486 (11.605)</td>
</tr>
<tr>
<td>Labor/Consumer/Environment general, Germany</td>
<td>27.531 (11.616)*</td>
</tr>
<tr>
<td>Labor/Consumer/Environment general, Finland</td>
<td>0.000 (0.000)**</td>
</tr>
<tr>
<td>Labor/Consumer/Environment specialized, Netherlands</td>
<td>-8.621 (9.801)</td>
</tr>
<tr>
<td>Labor/Consumer/Environment specialized, Germany</td>
<td>14.499 (10.063)</td>
</tr>
<tr>
<td>Labor/Consumer/Environment specialized, Finland</td>
<td>22.470 (10.473)*</td>
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<tr>
<td>Economy/Industry/Agriculture general, Netherlands</td>
<td>-13.152 (7.539)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture general, Germany</td>
<td>-1.542 (8.013)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture general, Finland</td>
<td>-0.581 (9.084)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture specialized, Netherlands</td>
<td>6.378 (7.391)</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture specialized, Germany</td>
<td>19.539 (7.490)**</td>
</tr>
<tr>
<td>Economy/Industry/Agriculture specialized, Finland</td>
<td>13.228 (7.761)</td>
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<tr>
<td>Other societal groups, Netherlands</td>
<td>-11.306 (9.860)</td>
</tr>
<tr>
<td>Other societal groups, Germany</td>
<td>-5.288 (10.992)</td>
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<tr>
<td>Other societal groups, Finland</td>
<td>-6.040 (13.523)</td>
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<table>
<thead>
<tr>
<th>Societal actors</th>
<th>No outlier</th>
</tr>
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<td>AG * SII</td>
<td></td>
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</tbody>
</table>

Other ministries, new | -2.132 (5.903) | -1.025 (5.816) |
| Agencies, new | -5.726 (5.410) | -4.305 (5.334) |
| Parliament, new | -9.185 (9.283) | -8.468 (9.131) |
| Labor/Consumer/Environment general | 2.791 (9.148) | 8.751 (9.391) |
| Labor/Consumer/Environment specialized | 5.772 (7.775) | 7.449 (7.817) |
| Economy/Industry/Agriculture general | -13.049 (6.006)* | -12.401 (5.916)* |
| Economy/Industry/Agriculture specialized | -11.362 (5.361)* | -10.576 (5.289)* |
| Other societal groups - specialized | -14.476 (8.345) | -17.549 (8.372)* |
| Reference groups= leading ministry, Great Britain, old policy field

*Standard errors in parentheses* significant at 5% level; ** significant at 1% level
**References:**

<table>
<thead>
<tr>
<th>Author(s)</th>
<th>Title</th>
<th>Journal/Volume/Year</th>
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<tbody>
<tr>
<td>Barry, Brian</td>
<td>Is it better to be powerful or lucky?, in: Barry: Democracy and Power</td>
<td>Oxford: Clarendon, 1991</td>
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<td>Corporatism as Reductionism</td>
<td>Government and Opposition, Vol. 16, 79-95, 1980</td>
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