

# Timing is Everything? Organized Interests and the Timing of Legislative Activity

Dimiter Toshkov, Dave Lowery, Brendan Carroll, Joost Berkhout

Version 18 July 2012, forthcoming in *Interest Groups and Advocacy*

## **Abstract**

Different perspectives on the role of organized interests in democratic politics imply different temporal sequences in the relationship between legislative activity and the influence activities of organized interests. Unfortunately, lack of data has greatly limited any kind of detailed examination of this temporal relationship. We address this problem by taking advantage of the chronologically very precise data on lobbying activity provided by the door pass system of the European Parliament (Berkhout and Lowery 2011) and data on EU legislative activity collected from EURLEX. After reviewing the several different theoretical perspectives on the timing of lobbying and legislative activity, we present a time-series analysis of the co-evolution of legislative output and interest groups for the period 2005-2011. Our findings show that, contrary to what pluralist and neo-corporatist theories propose, interest groups neither lead nor lag bursts in legislative activity in the EU.

## **Stopping by the European Parliament for a Chat: Organized Interests and the Timing of Legislative Activity**

What is the relationship between the timing of legislative actions and the activity of organized interests? This is an important question because, despite a half century of work on the politics of interest representation, the literature offers an extraordinarily wide range of assessments of the role of organized interests in democratic politics. These views range from the traditional pluralist view (Truman 1951) that such interests are a vital part of democratic governance to assessments that they exert a pernicious influence by essentially purchasing public policy and, thereby, extract rents (Olson 1982). And a few theorists even assert that organized interests are instead exploited by political officials via their manipulation of public policy agendas in what amounts to an extortion racket designed to secure campaign support (McChesney 1997). In a somewhat more benign organizational-based version of this argument, neocorporatist scholars tend to emphasize the relative strength of political officials in setting the agenda and the activity of interest organizations responding to political events (or, at best, occurring contemporaneously with legislative or executive activity) (Streeck and Kenworthy, 2005, 452; Wessels, 2004, 202). Sorting through these several perspectives has constituted a very large part of our collective research agenda on organized interests. More to the immediate point, these different perspectives imply somewhat different sequences in the relationship between legislative activity of governments and the influence activities of organized interests. That is, they respectively suggest that the latter might lag, lead or be contemporaneous with the former. Thus, a close examination of their temporal relationship might provide an important lens through which to assess these wide-ranging perspectives on the role of organized interests in democratic governance.

Unfortunately, the lack of data needed to examine this temporal relationship has greatly limited any kind of detailed examination of this important question. Beyond case studies of specific, usually very controversial pieces of legislation with their inherent and inevitable selection biases, systematic data has been limited to examination of legislative activity in the national and state governments of the United States and their relationship to lobbying activity as provided via lobby registration data (Leech, Baumgartner, La Pira, and Semanko. 2005; Gray, Lowery, Fellowes, and Anderson 2005). Lobby registration data, however, are typically reported on an annual basis, making them extremely lumpy in terms of assessing the precise timing of legislative activity and the lobbying of organized interests. As Gray et al (2005) note, the annual data at best suggest that their relationship *appears* to be contemporaneous. But this may only be because, at the level of annual observations, more

precise assessments of their timing simply cannot be observed.

We address this problem, and thereby the larger question of the role of organized interests in democratic politics, by taking advantage of the temporally precise data on the entry of organized interests into the EU interest community provided by the door pass system of the European Parliament (Berkhout and Lowery 2011). These data, while not without their own unique problems, have the very significant advantage that they can be sliced into very precise temporal units based on the date of registration of the lobbyist. They thus provide an almost unique opportunity to systematically assess the relationship between the timing of legislative activity and lobbying. Using this data, we are able to show that there is no evidence that the appearance of interest groups at the gates of the EU leads or lags bursts in proposals for legislation and the amount of legislation adopted. The ebbs and flows of interest group activities and legislative output over time appear to be largely unrelated when we look at 15 general policy categories, and when we examine a more detailed list of 65 precisely-defined policy sub-fields.

In the first section of the paper, we review the several different perspectives on the timing of lobbying and legislative activity along with a number of practical limitations on their interpretation. We then present the data used in our analysis. Following the analysis of that data, we return to consider the larger issue of what our findings can tell us about the role of organized interests in democratic politics and, more importantly, our theories of organized interests in the policy process.

### **Lagging, Leading, or a Contemporaneous Relationship**

In reviewing the many different perspectives now offered on the relationship between the timing of legislative and lobbying activity, we start with the first of two null hypotheses. This first perspective suggests that the two activities are *substantively* contemporaneous where, by substantive, we mean that there is no causal relationship between them. Rather, they are both responsive to something else. In this pluralist view, both lobbying activity and legislative agendas reflect less each other than real policy issues facing society. Thus, Truman (1951, 511) identified the locus of mobilization in disturbances in society. Organized interests engage in political activity to secure redress on these disturbances. But executive and legislative entrepreneurs also have powerful incentives to monitor their constituents' concerns (Wawro 2000). Parties too win elections by finding issues on which to campaign (Macdonald and Rabinowitz 2001). This does not mean, of course, that organized interests play an insignificant role. Indeed, pluralists assert that they are vital in sharpening political

officials' understanding of the public's concerns (Truman 1951; Denzau and Munger 1986). But if both government officials and organized interests are responding swiftly to the same disturbances in society, then we should see the volume of lobbying activity and the content of legislative agendas changing in a contemporaneous manner with both reflecting the public's concerns. But we must also note that while this traditional pluralist expectation might be well founded for national governments, it is less clear that it applies so forcefully to the institutions of the European Union given its attenuated linkage between citizens and political officials.

A second hypothesis suggests that the content of lobbying *leads* legislative agendas. There are a variety of different perspectives on the politics of interest representation that might be consistent with such a sequence. Traditional critics of interest group pluralism (Schattschneider 1960; Scholzman 1984) imply that presence in the lobbying community insures success in both defining legislative agendas and the actions taken upon their items. Critics of the campaign finance system in the U.S. often assert that interest organizations buy legislation (Drew 1999; West 2000). Similarly, Stigler (1971) and Peltzman's (1976) economic model of organized interests, like that of Olson (1982), implies that organizations approach legislators with demands for protection from market competition and that they are nearly always successful. All of these models suggest that agendas change following the mobilization of organizations for political activity. Unfortunately, all are somewhat weak in empirically relating activity and agendas. Schattschneider and Scholzman do not analyze policy agendas; focusing only on lobbying presence, they simply assume that presence implies influence. Stigler and Peltzman's work are formal models with no empirical content, and much the same can be said about Olson (1982). And despite findings that U.S. campaign contributions and lobbying are closely related (Ansolobehere, Snyder, Tripathi. 2000), the precise causal link between campaign contributions and policy agendas remains highly contested (Wright 1996). Even more problematic in terms of our data, it is not at all clear that organized interests have the means to purchase policy in the European Union. The critical currency in these analyses of the American cases is comprised of campaign contributions, something that organized interests obviously have little access to in Brussels.

But even models that are less critical of organized interests and less dependent on campaign finance as an instrument of influence often opt for a sequence suggesting that organizations precede agendas. Especially important here is Baumgartner and Jones' (1993) punctuated equilibrium model of the policy process. In their view, legislative agendas are quite sticky, changing only periodically as the prior policy regime becomes incapable of addressing new issues. But interest organizations play a significant role in bringing about

these changes, raising new issues and new perspectives on old issues. As Baumgartner and Jones (1993, 190) note, “The mobilization of interests changes over time, and with these changes come differences in the likelihood of certain issues to hit the public agenda.” Nownes’ (2003) time series analysis of the mobilization of gay and lesbian organizations reaches a similar conclusion. While some initial possibility of success is necessary for the first organizations in a policy area to mobilize, growth of imitators and competitors follows swiftly, which only then leads to more frequent success in first securing space on policy agendas and then winning policy victories. Similarly, Brasher, Lowery, and Gray’s (1999) time series analysis of the boom and bust cycle of mobilization in the Florida interest system found that a huge build-up of its interest community occurred over the decade of the 1980s *prior* to resolution of a long-standing fiscal crisis. These studies have offered important insights about long-term changes in interest systems. Still, they examine what are almost by definition exceptional cases – the emergence of new issues and/or significant changes in the composition of interest communities. It is less clear whether the population dynamics of most interest organization guilds and the kinds of lobbying activity that comprise politics as usual typically follow this pattern. This is especially so because recent research shows that there are marked differences between cases where organized interests lobby to change policy and where they seek to maintain the status quo policy (Baumgartner et al. 2009).

Our third hypothesis suggests that change in the composition of interest communities lags legislative agendas. While not a common view within political science or in European analyses of organized interests, this hypothesis lies at the heart of one of the major competitors to the Stigler-Peltzman-Olson model within economics (Mitchell and Munger 1991). The lagging model switches the direction of corruption, with politicians extorting campaign funds from economic sectors by introducing bills that compel them to organize for political activity so as to pay protection money (Mueller and Murrell 1990; Coughlin, Mueller, and Murrell 1990; Shugart and Tollison 1986). That is, politicians introduce bills to expropriate rents or to encourage bureaucratic agencies to propose new regulations that have the same effect. The resulting rush to the capitol constitutes an auction that “provides valuable information whether regulator action or inaction will be more lucrative to politicians themselves; it helps to identify the likely payers and to set the amounts of compensation to be paid” (McChesney 1997, 36). Over time, politicians learn who the most lucrative extortion targets are and maintain a steady stream of proposed legislation to ensure that funds continue to flow. In this model, agendas arise neither from the demands of interest organizations nor disturbances in society. Rather, they arise from the need of legislators to raise campaign cash

or some equivalent resource that they value. Thus, legislative agendas are constructed prior to lobbying activity, with the latter responding to the former.

Though from a fundamentally different point of view, neocorporatist and institution-oriented scholars would expect a similar time-order. In such a view, interest organizations enter into a relatively long-lasting exchange relationship with policy makers. Indeed, over time, organized interests may develop very close ties with state actors. In the words of Streeck and Kenworthy (2005, 452), the former “may turn into extended arms of government.” Such ties are especially likely to develop when governments provide subsidies or give interest organizations a formal role in policy implementation. Although such ties may become so close as to render the occurrence of legislation and lobbying so proximate as to be contemporaneous, we think it more likely in such cases that organized interests typically react to, and thus lag, legislative activity. In the EU case, it has been argued that political actors create – through, among other incentives, subsidies – the very interest community that is affected by the legislation (Greenwood, 2007; Sanchez-Salgado, 2007). Before legislation on subsidies is adopted, there is simply no organized interest present to lobby.

Although there have been a few indirect tests cited in support of its core propositions (Beck, Hoskin, and Connelly 1992; McChesney 1997, 83-85), the underlying assumptions of the lag model have rarely been examined empirically. In one exception, Lowery, Gray, and Fellowes (2005) found that the size and breadth of U.S. state legislative agendas are only weakly or even inversely related to a number of variables that would seem to address directly the incentives of legislators to raise campaign cash – the costs of state legislative electoral campaigns, the extent to which they are publicly financed, and the presence of contribution limits. More broadly, it seems unlikely that the hard extortion version of this view can provide a general explanation of the structure of interest communities. Even in the United States, most organized interests do not contribute campaign funds, the purported reason for their existence from the legislator’s perspective. And when we turn to European cases, this currency of extortion is missing entirely, and there is no obvious alternative currency that might provide the kind of powerful incentive to fuel this kind of coercive relationship. Nor do most interest organizations in Europe receive some form of subsidy.

Still, there are other reasons to expect that the relationship between lobbying and legislative activity might be a lagging one. That is, the pluralist model suggests that organized interests respond to disturbances (Truman 1951). But not all disturbances are limited to exogenous events occurring in society. Rather, government activity itself constitutes a powerful disturbance to which organized interests might well respond. And

indeed, studies of this “demand” function of lobbying in the U.S. and the European Union have often found that greater government attention to policy issues powerfully draws organized interests into lobbying activity (Leech, Baumgartner, La Pira, and Semanko. 2005; Gray, Lowery, Fellowes, and Anderson 2005; Messer, Berkhout, and Lowery 2011).

However, such findings are largely based on very lumpy temporal observations and/or cross-sectional observations across the American states or the European Union. A more precise level of measurement is needed. But more precise observations might be especially expected to uncover such a lagging demand response in the case of the European Union. That is, given the very powerful policy role of the European Commission, we might well expect organized interests to rush to the European Parliament as an appeals court, thereby seeking redress to the policy disturbances inherent in Commission policy proposals.

Finally, we must consider a number of practical limitations that together comprise something of a second null hypothesis – in this case, an *observational* null hypothesis. That is, the activities around which organized interests mobilize are not all of a single kind. These differences might make it difficult to observe a simple pattern of contemporaneous, lagging, or leading relationship.

First, not all issues attract the same level of activity on the part of organized interests. Some issues attract the attention of only one or a few organized interests, others pit small groups of interests against each other (e.g., air and rail transport), and still others generate titanic battles between armies of lobbyists representing, for example, consumer and producer interests (Smith 2000). A leading function might be far more plausible for the first, where a specific interest is seeking a change in policy, and less so for the last, where organized interests are drawn to the sound of an on-going battle.

Second, different kinds of interests might respond to a given policy proposal at different times. Thus, one set of interests (e.g., rail transport interests) might promote policy changes advantageous to them, thereby leading policy activity. Their success might well generate a lagging response by other interests (e.g., air transport interests) if the very success of the first set of interests constitutes a disturbance to the second’s vital interests. While evidence of such counter-mobilization is limited (Gray, Lowery, Wolak, Godwin, and Kilburn 2005), it remains an attractive hypothesis in the literature. In either case, we might see lagging, leading, and perhaps even contemporaneous responses simultaneously.

A final complication in this regard concerns the kinds of interest organizations that are either responding to or generating policy activity. That is, while all of the models we have

examined here tend to treat all organized interests as if they were the same, there are marked differences in their levels of policy involvement. While observations of populations of interests in the U.S. and the European Union have found them to be highly volatile with considerable churning within interest communities, a few interests are nearly permanent members and most but temporary residents there for a short time (Anderson, Newmark, Gray, and Lowery 2004; Berkhout and Lowery 2011). The former, the old bulls among lobbying organizations, are often advocacy groups whose main purpose is lobbying to promote or impede lobbying change. The latter – the mayflies of the lobbying community – are often interests whose main functions are not advocacy per se (e.g., producing tires). They appear only as policy impinges on their primary interests (Gray and Lowery 1995). It would seem likely that the old bulls might well be more likely to engage in leading policy change while the latter are more responsive, and thus lag, proposals for policy change.

### **Lobbying in and legislative production in the European Union**

Although the arguments put forward by these competing perspectives are of a general nature, an empirical study that tests them must consider the institutional context that structures both legislative production and influences interest group mobilization in its empirical domain. Within any political system interest groups have several institutional venues in which to seek influence. The attractiveness of any one institution for lobbyists depends in part on the role the institution plays in the policy process. This is especially true for the complex structure of the EU. While the US Congress has the power to both initiate legislative proposals and decide upon them, the role of the European Parliament is more limited. Within the EU, the unelected Commission has a monopoly on legislative initiative. Because all legislative proposals originate here, the Commission receives significant attention by interest groups and by scholars studying interest representation in the EU (Coen 2007). Nevertheless, lobbying does not cease once proposals take shape as groups further seek influence over amendments and the final adoption of legislation (Marshall 2010).

Like in the US Congress, legislative decision-making is shared between two institutions. The precise relationship between the EP and the Council on this matter depends on the applicable treaty provisions, which determine the decision making procedure to be used. Formerly, the decision making role of the EP was more limited, however successive reforms have seen an increase in the policy areas in which the Council and the EP act together as coequal legislators in the context of the so-called “co-decision” procedure (renamed the ‘ordinary legislative procedure’ by the Treaty of Lisbon). Additionally, the EP has a

privileged role in EU budgetary policy. Not only does it monitor spending, it also acts together with the Council in adopting the budget and can unilaterally approve the budget if no agreement with the Council is made. As a result, groups that depend in part on EU funding have a strong incentive to closely monitor the EP's budgetary activities. On the other hand, in fields like the Common Foreign and Security Policy, taxation, and other more narrowly defined areas the EP has a more advisory or consultative function, and decisions are made by the Council. In such areas interest groups have little incentive to lobby Parliament.

The type of legislative act being debated may also influence the attractiveness to interest groups seeking influence. The two most important legislative instruments in the EU are regulations and directives. While regulations have direct legal effect, directives must first be transposed individually by each member state. Because some directives grant the member states significant flexibility in how they adapt EU requirements, interest groups may have yet another venue in which to shape policy.

Last, it is likely that the interest group community lobbying the European Parliament is more volatile than communities lobbying national parliaments are. A large proportion of interest organizations from member states have their permanent base and headquarters in member state capitals, and are 'tourists' when lobbying the European Parliament (Berkhout and Lowery, 2011). This makes the European Parliament a very likely case to observe a very close relationship between legislative activity and the presence of lobbyists.

## **Testing the Competing Expectations**

### ***Data***

In order to test the arguments outlined above, we combine two unique sources of information directly relevant to the puzzle we have identified – data on the interest group registration at the European Parliament (EP) and data on the legislative activity of the EU derived from EURLEX. In the following section, we briefly describe these two data sources.

The European Parliament maintains a door pass system for lobbyists. Everyone entering the Parliament's premises as a lobbyist is required to register on this list (EP, 2003-ongoing). If not renewed, the accreditation expires after one year. This registration list is available online and reports personal names and organizational affiliation. The door pass requirement has been part of the Rules and Procedures of the European Parliament since 1996. For a more elaborate discussion of the register in relation to other registers and its history, see Chabanet (2006: 10, 21), Balme and Chabanet (2009: 208-234), and Berkhout and Lowery (2008, 2011).

The door pass data have a number of major advantages for our purpose in comparison to other directories (CONECCS, Public Affairs Directory, new Transparency register). First, the door passes are important, indeed necessary, to lobbyists in conducting their influence activities. The data tell us something about actual activity instead of mere organizational existence. Second, the list is administered by the Parliament instead of self-administered by the registrants as is the case for the EC register. This means that there is a certain threshold that must be passed for registration - one cannot register online and a registrant needs to provide personal and organizational information in person. At the same time, the door pass system poses a low entry barrier as, contrary to for instance the old CONECCS register, various types of organizations may apply for accreditation. Last, the register is relatively sensitive to changes over time. The online version of the register does not provide the dates of registration of entry passes. However, we have obtained an electronic copy of all registrations in the system until April 2011 directly by the EP secretariat. This version of the register provides the start and end date of the passes for every organization. The same organization can feature more than once.

A random sample of 1300 organizations was drawn from copies of online available versions of the register (2005-2010). The sampling was done after the merger of the organizations into a single list. This means that organizations that are present throughout the time period studied have the same chance to be in the sample as those that were present for only a very short period of time. On the aggregate, however, this produces a sample that is not representative of the lobby *activity* over the full time period because organizations that have been present for four years are likely to have developed more activities than organizations that were present for only a couple of months. However, we are interested in changes in the interest community in terms of or in association with the policies lobbied. Still, if anything, this bias towards 'tourists' in the system (and an overestimation of system volatility) should make it more likely to find a relationship between interest community changes and legislative activity. Remember that the online version of the list does not provide the exact date of registration. Therefore we match the organizations sampled with the registration dates provided by the EP secretariat. About half of the organization could be matched. This reduces our sample to 670 organizations but does not further bias the selection of organizations. The time period over which the data on interest group is considered reliable is thus 2005-2011.

Four student coders visited the websites for each organization from the sample and recorded the kind of interest each group represents (business, public, societal, or cross-

sectoral) as well as the specific policy areas that each group/organization lists as its policy priorities (see below for a description of the categories used). Intercoder reliability for the placing of groups into policy areas was moderate (0.60 for Cronbach's Alpha).

The precise operationalization of interest group mobilization that we use is the number of new passes issued to organizations registered at the EP which are active in a specific policy area for each quarter between 2005.I and 2011.I. We track the number of new registrations rather than the net number of organizations (passes) being registered during the period because the end date of the registrations is rather arbitrary (one year for the vast majority of cases) and the de-registration dates are not as reliable as the registration dates.

The data used to track the legislative output of the EU is derived from the EURLEX (former CELEX) database available at <http://eur-lex.europa.eu>. For the period that we study, EURLEX has comprehensive information on all adopted legislation *and* on all Commission proposals for legislative acts. First, we extracted the information on all proposals for legal acts (directives, regulations, and decisions) for the period 2005-2011. Relying on the search functions of EURLEX does not produce precise information (for example, one gets numerous corrigenda of legal acts listed separately in the list of results). In response to this potential problem, we used automated data extraction to obtain data at the lowest possible level of aggregation (proposal) and performed all further manipulations and categorizations using this legal act-level data.

In order to categorize the EU legislative output, we use the classification headings provided by EURLEX in order to derive two lists of policy domains – a general and a specific one. The EURLEX classification headings provide a hierarchically-structured scheme. That is, each legal act was put into several (up to three) categories. The main list consists of 20 categories, and under each of the general categories there are additional subheadings. The general list of policy domains that we construct follows closely the EURLEX classification, but we exclude several EURLEX categories that are not associated with legislative acts (e.g. category 20 - People's Europe). For example, the general list includes Agriculture, Social Policy, Transport, etc. The specific list of policy domains we construct takes advantage of the EURLEX sub-categories at the lowest level of aggregation and covers 65 policy domains. In this list, the policy domains are narrowly defined, for example Agriculture: Milk, Energy: Coal, and Land Transport. Appendix I provide details on how we map our policy domains to the existing categories of the EURLEX classification system.

In order to explore the theoretical possibility that the type of policy field matters for the relationship between mobilization and legislative activity, we categorize the general

policy areas into three groups: the first group comprises of policy fields that attract broad social interest – these are Environment and Consumer Protection, Social Policy and Education, Science and Culture; the second group collects the policy fields which are likely to be dominated by a smaller number of more narrowly defined interests – these are Internal Market, Transport, Energy, Economic law, Agriculture, Fisheries, Taxation; the third and final group comprises of the policy fields which are active in External affairs, Common Foreign and Security Policy, Justice and Regional policy.

In principle, both the interest group and the legislative proposals datasets allow for aggregating the data in time periods of arbitrarily small durations (e.g. days). We chose to use quarters as the unit of observation for the main analyses presented in the article because it is short enough to capture variation in the population of interest groups and legislative proposals, and at the same time is long enough to filter random fluctuations in the number of registered organizations and proposals made. Any shorter unit of observation will produce numerous empty cells in the legislative proposal data since for many of the policy areas only a handful of proposals are made each year. As explained above, we have reliable data for the registered interest group population between the first quarter of 2005 (2005.I) and the first quarter of 2011 (2011.I) which provides 25 observations. We report the results from models which use the semester and the year as alternative units of observation in Appendix II.

### *Method of analysis*

We start by examining the relationships between interest organizations and legislative proposals using a series of OSL regression with lagged independent and dependent variables. For each policy area, we estimate the equations:

$$(1) \text{ Proposals}_t = \text{Proposals}_{t-1} + \text{InterestGroups}_{t-1} + \text{error},$$

$$(2) \text{ InterestGroups}_t = \text{Proposals}_{t-1} + \text{InterestGroups}_{t-1} + \text{error},$$

Essentially, our approach is the same as Granger causality test with one lag. We test whether the lagged values of the exogenous variable are associated with the contemporary values of the dependent variable, net of the effect of the lagged values of the dependent variable. The time series of the number of registered interest groups in each policy area show evidence for auto-correlation which, however, disappear once lagged values are included. We examined the cross-correlations for evidence of possible associations at lags greater than one, but we did not find any systematic evidence for such dependencies in the data. Since including additional

lags would further decrease the effective number of observations we settled for including a single lag. First, we run and report the results from separate regressions for each policy area. Then we present a multi-level model in order to allow the policy areas to be treated as random rather than fixed effects, and to be able to test the hypotheses about the effect of the type of policy field on the relationship between interest group mobilization and legislative activity.

### ***Findings***

We run two sets of analyses: one using the general list of policy sectors and a second one using the detailed list of 65 narrowly-defined subfields. For both sets of analyses we show dotplots of the estimated regression coefficients and confidence intervals for each policy area. The coefficient for the exogenous variable is estimated to be significantly different from zero (at the 0.05 level) when the confidence intervals do not overlap with the vertical line at zero. The dotplots provide a better view of the *distribution* of the policy-level coefficients than a table.

[Figure 1 here]

Focusing first on the general categories, Figure 1 presents the regression coefficients and 95% confidence intervals for the effect of the lagged number of legislative proposals on the number of interest groups registered at the EP for the period 2007.I – 2011.I, net of the lagged values of the dependent variable (hence, on the difference in the number of registered groups between period  $t$  and  $t-1$ ). The pattern is clear – from the 15 general policy categories included, only in the cases of Energy and Regional policy the effect of legislative proposals appear to be statistically significant. Given the results of the remaining policy areas, however, this result is most probably spurious.

Furthermore, several negative coefficients are estimated, while it is hard to imagine any reasons why more legislative proposals introduced should *lower* the number of active interest groups in the policy field. Overall, there is no evidence that changes in the interest group population follow changing levels of legislative activity in the EU.

[Figure 2 here]

Next, using the same list of general policy categories, let us examine the hypothesis that interest groups lead in the relationship. Figure 2 show the results of the estimated

regressions. Again, there is no clear pattern. Only one policy area (CFSP – Common Foreign and Security Policy) appears to be statistically significant in the expected direction but given the overall distribution of results, we should not put any confidence in this association. Overall, there is no evidence that lagged values of the number of registered interest groups are helpful in predicting the current values of proposed legislation. We have to conclude that in the EU context, the dynamics of interest group mobilization and legislative production appear unrelated.

But so far we have relied on a rather general list of policy categories which might obscure any relationship at a lower level of aggregation. Theoretically, it is more likely that a link would appear when we examine more narrowly-defined domains. Interest groups representing the cosmetics industry might not be interested in industrial policy in general, but should certainly care about forthcoming legislation affecting the cosmetics sector in particular.

[Figure 3 here]

The second set of analyses we present are based on the list of 65 specific policy areas. Again, we first look whether legislative activity leads changes in the size of the registered interest group population. Figure 3 plots the 65 separate regression coefficients and the associated 95% confidence intervals. The message of the figure is clear – past values of the number of proposals are not associated with present changes in the numbers of active interest groups. Only four of the sixty-five coefficients are statistically significant which is close to what can be expected by chance because of the multiple comparisons we are making and, again, non-interpretable negative values are common.

[Figure 4 here]

Finally, we need to re-examine the hypotheses that interest groups lead in the relationship implying that increase in the size of the registered population of interest groups precede the adoption of new legislative proposals. Figure 4 shows the results of the 65 regressions. The plot shows that there is no evidence for a link between the past number of registered interest groups and the changes in the legislative proposals made for any of the policy areas included (the one ‘significant’ coefficient is in fact negative). Overall, neither the specific policies nor the general ones show any evidence that the temporal movements of

legislative activity and interest group mobilization are related in the case of the EU. The fluctuations in the size of the interest group population neither lead nor lag bursts in legislative activity.

The policy level regressions presented above suffer from two shortcomings: first, they do not allow for a test of the hypothesis that different types of policy areas engender different types of dynamics between interest group mobilization and legislative activity, and, second, by estimating the effects of the exogenous variables separately no potentially useful information from other policy areas is taken into account. To address these two concerns, we present the results of two multilevel models which model the policy area as a random effect and include the type of policy area as a second-order predictor. Interactions between the lagged exogenous variables and the policy type provide a clue whether the relationships between interest groups and legislative activity differs in the different subgroups of policy areas.

[Table 1 here]

Table 1 presents the results of the multilevel model of interest group mobilization. Focusing first on the main fixed effects, we note that the autocorrelation between lagged and present values of the number of newly registered interest groups is large and significant, but there is no significant association between past values of legislation and the current values of interest groups (the estimated effect is positive but with a large standard deviation). The type of policy field also does not have a significant effect with social/environmental/consumer protection groups attracting in general more interest groups and foreign affairs/justice/regional policy slightly less than the baseline group of business-related policy areas. The interactions between type of policy area and lagged mobilization and legislation are also not significant. This implies that the relationship between interest groups and legislation (or rather, the lack thereof) does not change significantly between types of policy areas. Turning to the random effects, the varying intercepts for policy field account for a large part of the variation with a standard deviation of 12.65 (vs. the residual 8.04). On the other hand, allowing the slopes for lagged interest groups and legislation to vary with policy field as well, accounts for minor parts of the variation only and does not improve the fit of the model. These results are robust to different units of observation (semesters, years) and to restricting the sample to directives, and to co-decision only (see Table A.2 in Appendix II).

[Table 2 here]

Table 2 presents the results of the multilevel model of legislative activity. Contrary to theoretical expectations and intuition, the estimated effect of the lagged number of interest groups is estimated as negative, although it is not significant. There is also no significant autocorrelation of legislative activity. There are no significant interactions between the policy types and lagged legislative activity and interest group mobilization (when interest group mobilization is coupled with the foreign affairs/justice/regional policy type, the interaction is positive and significant but the effect is minor and not robust - see Table A.3 in Appendix II). Turning to the random effects, the varying intercepts for policy field account for a large part of the variation implying that the number of new legislation differs a lot per policy field (which is not really surprising). The varying slopes for lagged legislative activity and interest group mobilization do not improve much for model fit meaning that the *effects* of these variables does not differ a lot by policy field.

In order to check the robustness of this conclusion we replicated the analyses using only legislation adopted under co-decision (so with the active involvement of the EP) and only directives (or ‘ordinary legislative acts’ which usually give legal form to the most important policy initiative of the EU) instead of all legislation. None of these additional analyses provide any traces for a temporal relationship between interest groups and legislative activity. The tables summarizing the results are included in Appendix II. No major changes in the general pattern of null results were observed. Finally, we aggregated the data first at semester and then at yearly time windows (instead of quarters), but we could not find any significant association (see Appendix II). Furthermore, we replicated the analyses using the number of adopted legislation rather than the number of legislative proposals as a measure of legislative activity but no systematic link appeared (although we experimented with a higher number of lags). We also replaced the total number of interest organizations with the number of business organizations and advocacy organizations, respectively.

### **Conclusion**

Such largely null results must be considered from a number of perspectives. First, from an empirical standpoint, the analyses can be improved in several ways. First, a longer time series (as it becomes available) might enable us to better account in terms of statistical power for the dynamics in the relationships between legislation and interest organization mobilization. It could be argued that the two-year period observed here might be too short to observe the interplay between these two series across a full policy cycle, from the earliest informal

proposal stage to the final adoption. Moreover, the availability of more data points would enable us to include more lags in the models without compromising their reliability. At the same time, by considering proposals and adopted legislation separately, we have alleviated the disadvantages of the short time-series to some extent.

Second, the categorization of legislation based on EURLEX codes may exclude key legislation directly affecting interests in a given policy area, while including legislation that is of peripheral importance to those interest organizations. Interest organizations lobby specific pieces of legislation, not policy areas as a whole. Thus, while we would not argue that our analysis necessarily offers the final word on these relationships, current data collection opportunities do not offer much leeway to improve on the matching an interest group's domain of interest and the associated legislative output.

Still, we are not persuaded that our null and mixed findings can be fully explained by these data imitations. In regard to the first set of issues, especially, the data were very well suited to the theoretical question at hand. Indeed, the key problem with the few prior studies of the temporal relationship between legislative and lobbying activity has been the lack of shorter-term observations of their co-variation, not a lack of data on longer-term co-variation. And the length of the time series in terms of lags and leads encompasses well the time period in which most legislation is considered. And even greater specificity of linking lobbying and legislation would seem unlikely to dramatically alter our findings given the essentially null results for both our specific and general policy results.

Instead, we think that we need to give greater attention to the observational null hypothesis introduced earlier in our discussion of the competing theoretical expectations about the temporal relationship between legislation and lobbying. The several theoretical perspectives we noted – highlight lagging, leading, and contemporaneous effects – are essentially caricatures that are typically drawn from studies of specific, often extremely controversial or prominent (changes in) legislation or specific interest organizations that are, again, often atypical in the sense of a prior reputation for influence that may largely be related to maintaining status-quo policies and legislation. More often than not, scholars extract lessons from these atypical cases that they then apply to interest organizations as a whole, suggesting that all interest organizations operate in an environment in which, alternatively, they or government policymakers dominate the process. The truth is likely to be much more complex. Interest organizations sometimes lag, sometimes lead, and sometimes contemporaneously engage the public policy process. Given this mix of modes of engagement, null results would be expected and none of the caricatures would be expected to

provide a sufficient account of the complexities of the policy process insofar as it involves the activities of wide range of quite different kinds of interest organizations, a wide range of different kinds of policy proposals, and a wide range of governmental actors.

So, while more complete data and more thorough data analysis might well be called for, it may be even more important that we step back to address the rather thin – and at the same time overly broad – theoretical expectations provided by the caricatures now available in the literature on interest representation. That is, we need to step back and consider in a much more precise manner when, how, and especially why organized interests become engaged in the policy process. This will necessarily entail considering how interest organizations differ among themselves, when and how they react to each other, and when and how different kinds of policy legislation engage the activities interest organizations. Given the null results presented here, such more complex theoretical expectations are needed to drive further empirical analysis beyond merely looking for more detailed and dynamic central tendencies in the timing of legislative and lobbying activity. Does time matter? Almost certainly. But it is likely to matter in several different ways for different policies and different interest organizations. At a minimum, our null results suggest that a single, simple pattern of temporal relationship is unlikely to be sufficient or satisfying.

One of the main conceptual challenges facing the research field, and that is not fully resolved in this article, is that interest organizations tend to organize for a variety of reasons, where lobbying may be only a by-product of other activities. The classifications of interest organizations on the basis of the organizational rationale or social basis such as economic sectors consequently match classifications of policy domains such as EURLEX or policy agenda codes only partially (and vice versa). Depending on the type of data source used this may produce imprecise measurements of interest group activity. This is the main reason why researchers are well advised to draw a strong distinction between questions regarding on the one hand policy activities and on the other hand organizational maintenance or population issues. Though we try to link some aspects of those two types of questions, in this article we have predominantly addressed policy or legislation related questions. By our focus on the policy priorities of organizations, there is only limited contamination of coding the broader socio-economic interests instead of the relatively immediate and more narrow legislative interests. The precision of our data is further enhanced by using policy-related data sources instead of more general registers of interest organizations.

US lobby registration data is not available on anything less than an semi-annual basis. Therefore, it is not possible to get the kind of short-term activity of interest organizations

immediately prior to and following the consideration of legislation. In contrast, the EP door-pass data provide a level of detail on lobbying activity that is unmatched in the US data, although the US data provide far more detail on actual lobbying effort.

Another avenue for further research might be to use surveys rather than website-based classification of interest organizations? The major disadvantage of surveys is the non-response bias. On the other hand, websites have the additional advantage that they show actual behavior instead of stated behavior. However, surveys may provide more precise information on specific legislative activity. In surveys interest organizations may provide 'more honest' information instead of a 'preferred public profile' presented online (though social/political desirability is also a problem for surveys). In a future project, a combination of both methods could be pursued.

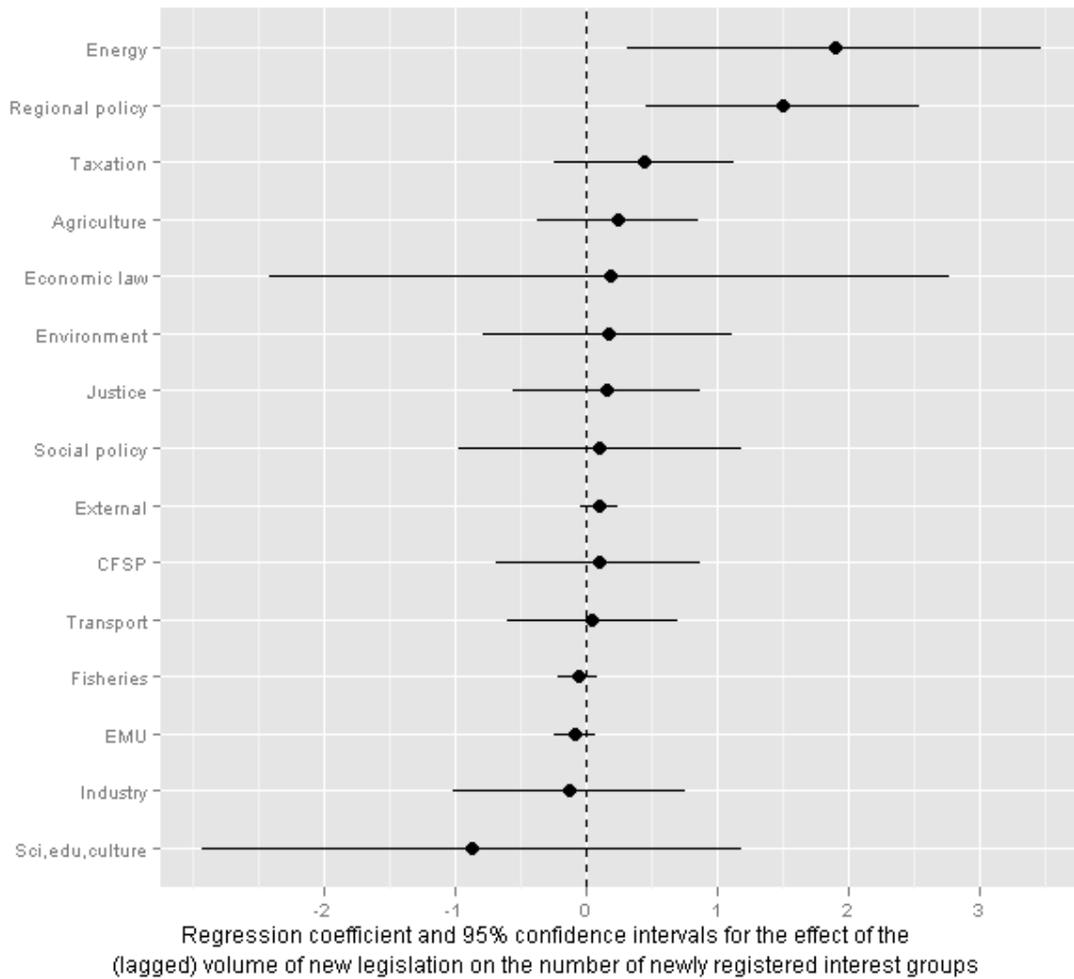
## References

- Anderson, Jennifer, Adam Newmark, Virginia Gray, and David Lowery. 2004. "Mayflies and Old Bulls: Demographic Volatility and Experience in State Interest Communities," State Politics and Policy Quarterly. 4 (2): 140-160.
- Ansolobehere, Stephen, James M. Snyder, Jr., and Micky Tripathi. 2000. "Are PAC Contributions Motivated by Access? New Evidence from the Lobby Disclosure Act." Business and Politics. 4 (2): Article 2.
- Balme, R., and Chabanet, D. (2008) *European Governance and Democracy: Power and Protest in the EU*. Lanham, MD: Rowman & Littlefield.
- Baumgartner, F., Berry, J. M., Hojnacki, M., Kimball, D., and Leech, B. (2009) *Lobbying and Policy Change: Who Wins, Who Loses and Why*. Chicago: Chicago University Press.
- Baumgartner, Frank R. and Bryan D. Jones. 1993. Agendas and Instability in American Politics. Chicago: University of Chicago Press.
- Baumgartner, F., Larsen-Price, H., Leech, B., and Rutledge, P. (2011) "Congressional and Presidential Effects on the Demand for Lobbying." Political Research Quarterly. 64: 3-16.
- Beck, Roger, Colin Hoskin, and J. Martin Connelly. 1992. "Rent Extraction through Political Extortion: An Empirical Examination." Journal of Legal Studies. 21: 217-232.
- Berkhout, J., and Lowery, D. (2008) 'Counting Organized Interests in the European Union: A Comparison of Data Sources' Journal of European Public Policy, 15(4), 489-513.
- Berkhout, Joost and David Lowery. 2011. "Short-Term Volatility in the EU Interest Community." Journal of European Public Policy. In press.
- Brandt, P. T. and J. T. Williams. 2007. Multiple time series models. London, Sage.
- Brasher, Holly, David Lowery, and Virginia Gray. 1999. "State Lobby Registration Data: The Anomalous Case of Florida (and Minnesota too!)." Legislative Studies Quarterly. 24: 303-314.
- Chabanet, D. (2006). The Regulation of Interest Groups in the European Union (pp. Work Package A1: Report (October 9, 2006)): CONNEX Research Group 4.
- Coen, D. (2007). "Empirical and Theoretical Studies in EU Lobbying." Journal of European Public Policy. 14: 333-345.
- Coughlin, Peter J., Dennis C. Mueller, and Peter Murrell. 1990. "Electoral Politics, Interest Groups, and the Size of Government." Economic Inquiry. 28: 682-705.
- Denzau, Arthur T. and Michael C. Munger. 1986. "Legislators and Interest Groups: How

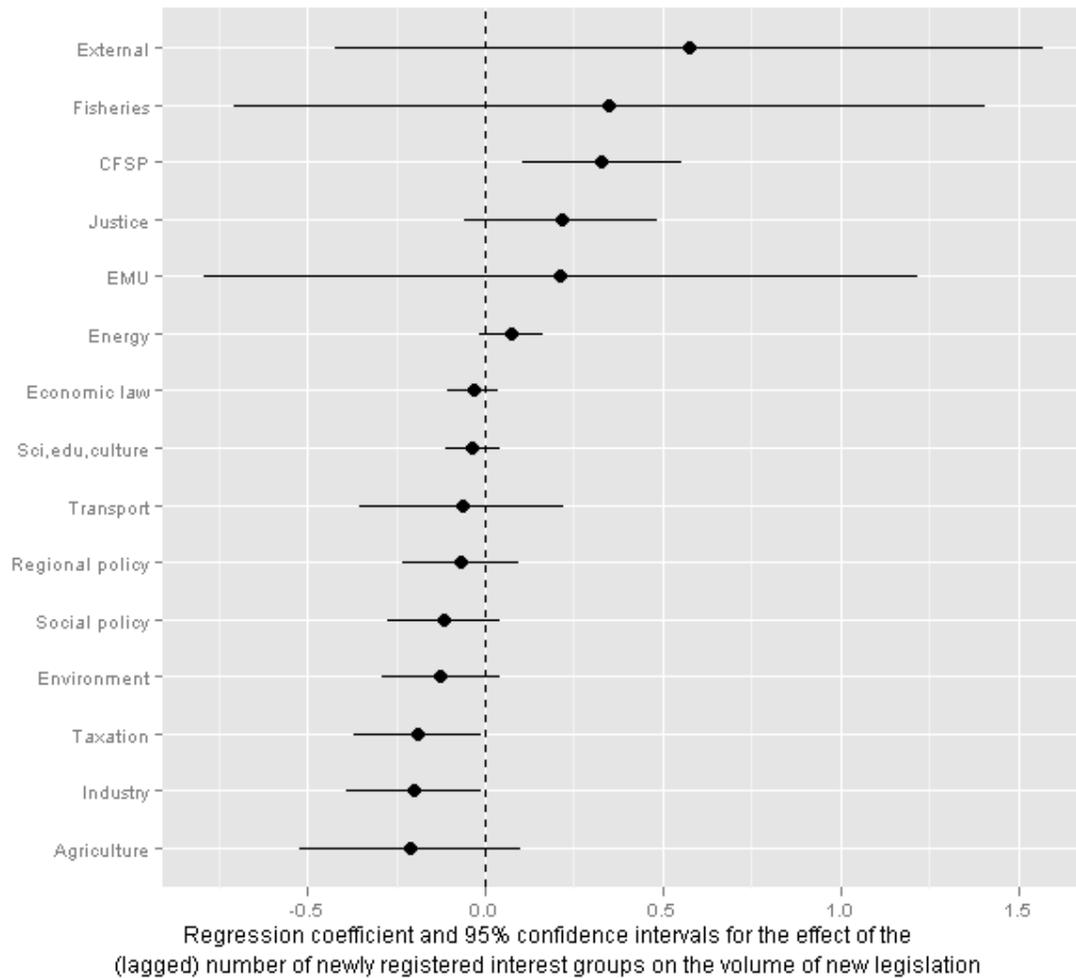
- Unorganized Interests Get Represented.” American Political Science Review. 80: 89
- Drew, Elizabeth. 1999. The Corruption of American Politics. Woodstock, New York: The Overlook Press.
- EP. (2003 - ongoing). European Parliament Accreditation Register:  
[Http://Europa.Eu/Lobbyists/Interest\\_Representative\\_Registers/Index\\_En.Html](http://Europa.Eu/Lobbyists/Interest_Representative_Registers/Index_En.Html).
- Granger, C. W. J. 1969. "Investigating Causal Relations by Econometric Models and Cross-spectral Methods." Econometrica 37(3): 424-438.
- Gray, Virginia, and David Lowery. 1995. "The Demography of Interest Organization Communities: Institutions, Associations, and Membership Groups." American Politics Quarterly. 23 (January): 3-32.
- Gray, Virginia, David Lowery, Jennifer Wolak, Erik Godwin, and Whitt Kilburn. 2005. "Reconsidering the Countermobilization Hypothesis: Health Policy Lobbying in the American States." Political Behavior. 27 (2): 99-132.
- Gray, Virginia, David Lowery, Matthew Fellowes, and Jennifer Anderson. 2005. "Understanding the Demand-Side of Lobbying: Interest System Energy in the American States." American Politics Research. 33 (1): 404-434.
- Greenwood, J. (2007) 'Organized Civil Society and Democratic Legitimacy in the European Union' British Journal of Political Science, 37(2), 333-357.
- Leech, Beth L., Frank R. Baumgartner, Timothy La Pira, and Nicholas A. Semanko. 2005. "Drawing Lobbyists to Washington: Government Activity and the Demand for Advocacy." 58: 19-30.
- Lowery, David, Virginia Gray, and Matthew Fellowes. 2005. "Organized Interests and Political Extortion: A Test of the Fetcher Bill Hypothesis." Social Science Quarterly, 86 (2): 368-385.
- Macdonald, Stuart Elaine, and George Rabinowitz. 2001. "Issue Voting." In International Encyclopedia of the Social and Behavioral Sciences, Neil J. Smelser and Paul B. Baltes, editors. Oxford, England: Pergamon.
- Marshall, D. 2010 "Who to Lobby and When: Institutional Determinants of Interest Group Strategies in European Parliament Committees." European Union Politics. 11: 553-75.
- McChesney, Fred S. 1997. Money for Nothing: Politicians, Rent Extraction, and Political Extortion. Cambridge: Harvard University Press.
- Messer, Anne, Joost Berkhout, David Lowery. 2011. "The Density of the EU Interest System: A Test of the ESA Model." British Journal of Political Science. 41 (1): 161-190.
- Mitchell, William C. and Michael C. Munger. 1991. "Economic Models of Interest Groups:

- An Introductory Survey." American Journal of Political Science. 35: 512-546.
- Mueller, Dennis G. and Peter Murrell. 1986. "Interest Groups and the Size of Government." Public Choice. 48: 125-145.
- Nownes, Anthony. 2003. "The Population Ecology of Interest Group Formation," British Journal of Political Science, 34 (1): 49-67.
- Olson, Mancur. 1982. The Rise and Decline of Nations. New Haven: Yale University Press.
- Peltzman, Sam. 1976. "Towards a More General Theory of Regulation." Journal of Law and Economics. 19: 211-240.
- Sanchez-Salgado, R. (2007) *Comment L'europe Construit La Société Civile*. Paris: Dalloz.
- Schattschneider, E. E. 1960. The Semisovereign People. New York: Holt, Rinehart, and Winston.
- Schlozman, Key Lehman. 1984. "What Accent the Heavenly Chorus? Political Equality and the American Pressure System." Journal of Politics. 46: 1006-1032.
- Shugart, William F. and Robert D. Tollison. 1986. "On the Growth of Government and the Political Economy of Legislation." Research in Law and Economics. 9: 111-127.
- Smith, Mark A. 2000. American Business and Political Power: Public Opinion, Elections, and Democracy. Chicago: University of Chicago Press.
- Stigler, George. 1971. "The Theory of Economic Regulation." Bell Journal of Economics and Management Science. 2: 3-21.
- Streeck, W., and Kenworthy, L. (2005) 'Theories and Practices of Neocorporatism'. In T. Janoski, R. R. Alford, A. M. Hicks and M. A. Schwartz (Eds.), *The Handbook of Political Sociology: States, Civil Societies and Globalization* (pp. 441-461). Cambridge: Cambridge University Press.
- Truman, David. 1951. The Governmental Process. New York: Alfred A. Knopf.
- Wawro, Gregory. 2000. Legislative Entrepreneurship in the U.S. House of Representatives. n Arbor, Michigan: University of Michigan Press.
- Wessels, B. (2004) 'Contestation Potential of Interest Groups in the EU: Emergence, Structure, and Political Alliances'. In G. Marks and M. R. Steenbergen (Eds.), *European Integration and Political Conflict* (pp. 195-215). Cambridge: Cambridge University Press.
- West, Darrell M. 2000. Checkbook Democracy. Boston: Northeastern University Press.
- Wright, John R. 1996. Interest Groups and Congress. Boston: Allyn and Bacon.

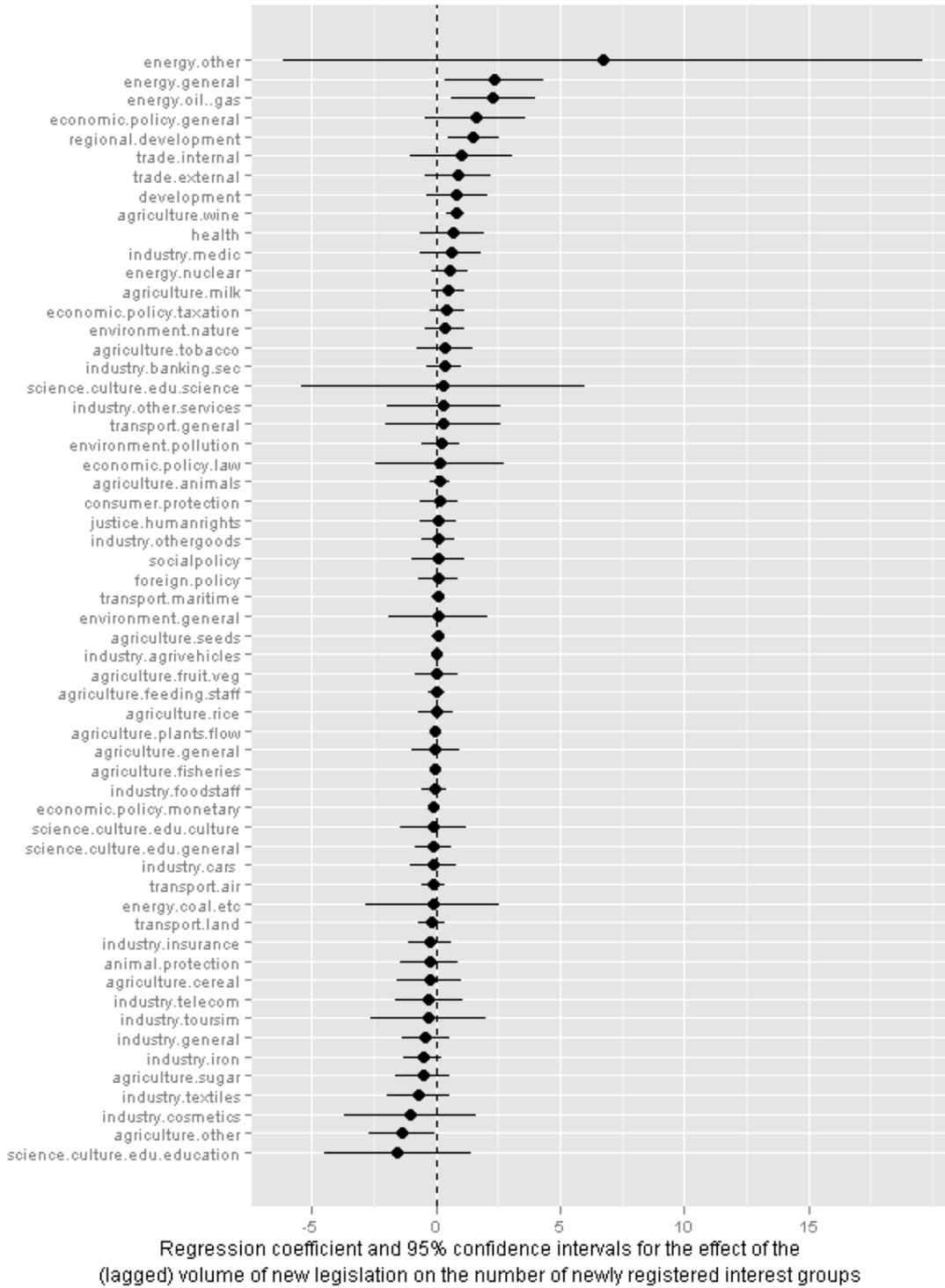
**Figure 1. Legislative proposals and interest groups in the EU. DV – Number of registered interest groups. General policy categories. All types of legal acts. 2005.I – 2011.I.**



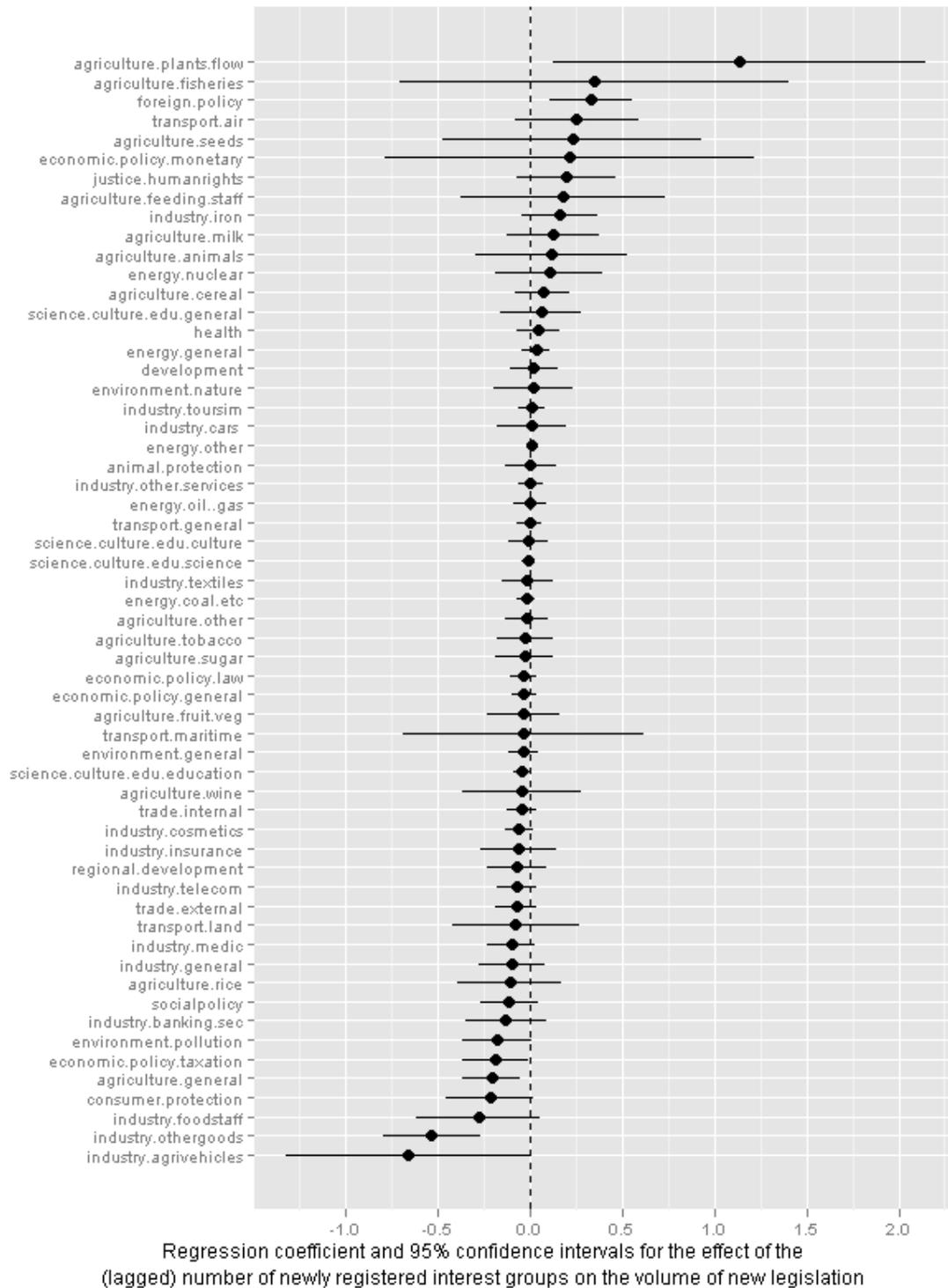
**Figure 2. Legislative proposals and interest groups in the EU. DV – Number of legislative proposals. General policy categories. All types of legal acts. 2005.I – 2011.I.**



**Figure 3. Legislative proposals and interest groups in the EU. DV – Number of interest groups. Specific policy categories. All types of legal acts. 2005.I – 2011.I.**



**Figure 5. Legislative proposals and interest groups in the EU. DV – Number of legislative proposals. General policy categories. All types of legal acts. 2005.I – 2011.I.**



**Table 1. A multi-level model of interest group mobilization in the EU.**

<b>Variable</b>	<b>Est.coeff.</b>	<b>St.error</b>	<b>Sign.</b>
<i>Fixed effects</i>			
Intercept	20.48	4.84	***
Lagged Interest Groups	0.26	0.07	***
Lagged Legislation	0.09	0.13	
Type of policy area: <i>social vs. business</i>	18.47	11.95	
<i>other vs. business</i>	-9.19	8.73	
Interaction Lagged Interest Groups: Type of policy area			
<i>social vs. business</i>	0.11	0.12	
<i>other vs. business</i>	0.02	0.19	
Interaction Lagged Legislation: Type of policy area			
<i>social vs. business</i>	-0.07	0.27	
<i>other vs. business</i>	0.02	0.18	
<i>Random effects</i>			
Policy area: Varying Intercepts		12.65	
Policy area: Varying Slopes for Interest Groups		0.05	
Policy area: Varying Slopes for Legislation		0.01	
<i>Residual</i>		8.04	
<p><i>Dependent variable: Number of new interest groups registered in a quarter in a policy area.</i></p> <p><i>Number of groups (policy areas): 15; Number of time periods: 25</i></p> <p><i>Model fit: Akaike Information Criterion=2607.3</i></p>			

**Table 2. A multi-level model of legislative activity in the EU.**

<b>Variable</b>	<b>Est.coeff.</b>	<b>St.error</b>	<b>Sign.</b>
<i>Fixed effects</i>			
Intercept	8.72	4.21	***
Lagged Interest Groups	-0.08	0.04	
Lagged Legislation	0.08	0.09	
Type of policy area: <i>social vs. business</i>	4.55	10.11	
<i>other vs. business</i>	-0.03	7.61	
Interaction Lagged Interest Groups: Type of policy area			
<i>social vs. business</i>	0.00	0.07	
<i>other vs. business</i>	0.33	0.11	*
Interaction Lagged Legislation: Type of policy area			
<i>social vs. business</i>	-0.07	0.20	
<i>other vs. business</i>	-0.15	0.16	
<i>Random effects</i>			
Policy area: Varying Intercepts		11.96	
Policy area: Varying Slopes for Interest Groups		0.05	
Policy area: Varying Slopes for Legislation		0.13	
<i>Residual</i>		4.72	
<p><i>Dependent variable: Number of new legislative proposals in a quarter in a policy area.</i></p> <p><i>Number of groups (policy areas): 15; Number of time periods: 25</i></p> <p><i>Model fit: Akaike Information Criterion=2330.7</i></p>			

**Table A. 1 List of policy areas and the corresponding EURLEX codes**

<b>Detailed category</b>	<b>General category</b>	<b>EURLEX classification code</b>
Agriculture: animal protection	Environment	15.40. Protection of animals
Agriculture: animals	Agriculture	03.50.30. Animal health and zootechnics
	Agriculture	03.60.52. Pigmeat
	Agriculture	03.60.57. Beef and veal
	Agriculture	03.60.68. Sheepmeat and goatmeat
Agriculture: cereals	Agriculture	03.60.51. Cereals
Agriculture: eggs	Agriculture	03.60.53. Eggs and poultry
Agriculture: feedingstuff	Agriculture	03.50.10. Animal feedingstuffs
	Agriculture	03.60.62. Dried fodder
Agriculture: fisheries	Fisheries	04.05. General, supply and research
	Fisheries	04.07. Statistics
	Fisheries	04.10.10. Structural measures
	Fisheries	04.10.20. Market organisation
	Fisheries	04.10.30. Conservation of resources
	Fisheries	04.10.30.10. Catch quotas and management of stocks
	Fisheries	04.10.30.20. Other conservation measures
	Fisheries	04.10.40. State aids
	Fisheries	04.20. External relations
	Fisheries	04.20.10. Multilateral relations
	Fisheries	04.20.20. Agreements with non-member countries
Agriculture: fruit and vegetables	Agriculture	03.60.54. Fresh fruit and vegetables
	Agriculture	03.60.65. Products processed from fruit and vegetables
Agriculture: general	NA	02.50. Mutual assistance
	NA	02.50.10. In the application of customs or agricultural rules
	NA	02.50.20. For the recovery of claims in customs or agriculture
	Agriculture	03.05. General

	Agriculture	03.07. Statistics
	Agriculture	03.10. Basic provisions
	Agriculture	03.10.10. National aid
	Agriculture	03.10.20. Common agricultural policy mechanisms
	Agriculture	03.10.30. Accessions
	Agriculture	03.20. European Agricultural Guidance and Guarantee Fund (EAGGF)
	Agriculture	03.20.10. General
	Agriculture	03.20.20. EAGGF (Guidance Section)
	Agriculture	03.20.30. EAGGF (Guarantee Section)
	Agriculture	03.30. Agricultural structures
	Agriculture	03.30.10. Social and structural measures
	Agriculture	03.30.20. Processing and marketing of agricultural products
	Agriculture	03.30.30. Accountancy data network
	Agriculture	03.30.40. Agricultural statistics
	Agriculture	03.30.50. Agricultural research
	Agriculture	03.30.60. Forests and forestry
	Agriculture	03.40. Monetary measures
	Agriculture	03.40.10. Fixing of compensatory amounts
	Agriculture	03.40.20. Other monetary measures
	Agriculture	03.50. Approximation of laws and health measures
	Agriculture	03.60. Products subject to market organisation
	Agriculture	03.60.05. Arrangements covering more than one market organisation
	Agriculture	03.80. Agreements with non-member countries
	Agriculture	06.20.10.10. Agriculture
Agriculture: hops	Agriculture	03.60.66. Hops
Agriculture: milk	Agriculture	03.60.56. Milk products
Agriculture: oils and fats	Agriculture	03.60.59. Oils and fats
Agriculture: other	Agriculture	03.60.69. Other agricultural products
	Agriculture	03.70. Products not subject to market organisation
	Agriculture	03.70.10. Silkworms
	Agriculture	03.70.20. Isoglucose
	Agriculture	03.70.30. Peas and beans
	Agriculture	03.70.40. Albumens

	Agriculture	03.70.50. Non-Annex II products (now Non-Annex I products)
	Agriculture	03.70.60. Cotton
	Agriculture	03.70.70. Other agricultural products
Agriculture: plants	Agriculture	03.50.20. Plant health
	Agriculture	03.60.61. Flowers and live plants
Agriculture: rice	Agriculture	03.60.58. Rice
Agriculture: seeds	Agriculture	03.50.40. Seeds and seedlings
	Agriculture	03.60.67. Seeds
Agriculture: sugar	Agriculture	03.60.60. Sugar
Agriculture: tobacco	Agriculture	03.60.64. Raw tobacco
	Agriculture	03.60.65. Flax and hemp
Agriculture: wine	Agriculture	03.60.55. Wine
Competition policy	Competition	08.10. Competition principles
	Competition	08.20. Restrictive practices
	Competition	08.20.10. Prohibited agreements
	Competition	08.20.20. Authorised agreements, exemptions and negative clearances
	Competition	08.20.30. Supervision procedures
	Competition	08.30. Dominant positions
	Competition	08.40. Concentrations
	Competition	08.50. Application of the rules of competition to public undertakings
	Competition	08.60. State aids and other subsidies
	Competition	08.70. Intra-Community dumping practices
	Competition	08.80. Obligations of undertakings
	Competition	08.90. National trading monopolies
Consumer protection	Environment	15.20. Consumers
	Environment	15.20.10. General
	Environment	15.20.20. Consumer information, education and representation
	Environment	15.20.30. Protection of health and safety
	Environment	15.20.40. Protection of economic interests
Economic policy: general	NA	06. Right of establishment and freedom to provide services
	NA	06.07. Statistics
	NA	06.10. Principles and conditions
	NA	06.20. Sectoral application

	NA	06.20.10. Production and processing activities
	NA	06.20.30. Business activities
	NA	06.20.40. Self-employed activities
	NA	06.20.50. Medical and paramedical activities
	NA	06.20.60. Other activities
	NA	06.30. Public contracts
	NA	06.30.10. General
	NA	06.30.20. Public works contracts
	NA	06.30.30. Public supply contracts
	NA	06.30.40. Public services contracts
	NA	06.30.50. Other public contracts
Economic policy: law	NA	17. Law relating to undertakings
	NA	17.01. General
	NA	17.10. Company law
	NA	17.20. Intellectual property law
	NA	17.30. Economic and commercial law
	NA	17.30.10. Business procedures
	NA	17.30.20. Other economic and commercial provisions
Economic policy: monetary	EMU	10. Economic and monetary policy and free movement of capital
	EMU	10.07. Statistics
	EMU	10.10. General
	EMU	10.20. Monetary policy
	EMU	10.20.10. Institutional monetary provisions
	EMU	10.20.20. Direct instruments of monetary policy
	EMU	10.20.30. Indirect instruments of monetary policy
	EMU	10.30. Economic policy
	EMU	10.30.10. Institutional economic provisions
	EMU	10.30.20. Instruments of economic policy
	EMU	10.30.30. Economic and monetary union
	EMU	10.40. Free movement of capital
Education, science and culture: culture	Education, science and culture	16.40. Culture
Education, science and culture: education	Education, science and culture	16.30. Education and training

Education, science and culture: general	Education, science and culture	16.20. Dissemination of information
	Education, science and culture	16. Science, information, education and culture
	Education, science and culture	16.01. General
	Education, science and culture	16.07. Statistics
Education, science and culture: science	Education, science and culture	16.10. Science
	Education, science and culture	16.10.10. General principles
	Education, science and culture	16.10.20. Research sectors
Energy: coal	Energy	12.20. Coal
	Energy	12.20.10. Promotion of the coal industry
	Energy	12.20.20. Competition: rates and other conditions of sale
	Energy	12.20.30. Coal products
Energy: general	Energy	12.20.40. Other measures relating to coal
	Energy	12. Energy
	Energy	12.07. Statistics
	Energy	12.10. General principles and programmes
	Energy	12.10.10. General
	Energy	12.10.20. Rational utilisation and conservation of energy
Energy: nuclear	Energy	12.30. Electricity
	Energy	12.40. Nuclear energy
	Energy	12.40.10. Fuel supplies
	Energy	12.40.20. Power stations and joint undertakings
	Energy	12.40.30. Safeguards
	Energy	12.40.40. Nuclear research
Energy: oil and gas	Energy	12.40.50. Other measures relating to nuclear energy
	Energy	12.50. Oil and gas
	Energy	12.50.10. Supplies and stocks
	Energy	12.50.20. Intra-Community trade
	Energy	12.50.30. Other measures relating to oil or gas

Energy: other	Energy	12.60. Other sources of energy
Environment: general	Environment	15. Environment, consumers and health protection
	Environment	15.07. Statistics
	Environment	15.10. Environment
	Environment	15.10.10. General provisions and programmes
	Environment	15.10.40. International cooperation
Environment: nature	Environment	15.10.30. Space, environment and natural resources
	Environment	15.10.30.10. Management and efficient use of space,
	Environment	15.10.30.20. Conservation of wild fauna and flora
	Environment	15.10.30.30. Waste management and clean technology
Environmet: pollution	Environment	15.10.20. Pollution and nuisances
	Environment	15.10.20.10. Nuclear safety and radioactive waste
	Environment	15.10.20.20. Water protection and management
	Environment	15.10.20.30. Monitoring of atmospheric pollution
	Environment	15.10.20.40. Prevention of noise pollution
	Environment	15.10.20.50. Chemicals, industrial risk and biotechnology
External relations: CFSP	CFSP	18. Common Foreign and Security Policy
External relations: development	External relations	11.70. Development policy
	External relations	11.70.10. General
	External relations	11.70.20. Aid to developing countries
	External relations	11.70.20.10. Food aid
	External relations	11.70.20.20. European Development Fund (EDF)
	External relations	11.70.20.30. Aid to Latin American and Asian countries
	External relations	11.70.30. Generalised system of preferences
	External relations	11.70.40. Associations
	External relations	11.70.40.10. Overseas countries and territories (PTOM)

	External relations	11.70.40.20. African, Caribbean and Pacific (ACP) Group of States
External relations: economic	External relations	11.30. Multilateral relations
	External relations	11.40. Bilateral agreements with non-member countries
	External relations	11.50. Action in favour of countries in transition
	External relations	11.60. Commercial policy
External relations: general	External relations	11. External relations
	External relations	11.10. General
	External relations	11.20. European political cooperation
Health	Environment	15.30. Health protection
Industry: aeronautical	Internal market	13.20.30. Aeronautical industry
Industry: agricultural vehicles	Internal market	13.30.11. Agricultural and forestry tractors
Industry: banking and securities	NA	06.20.20.20. Banks
	NA	06.20.20.25. Stock exchanges and other securities markets
Industry: vehicles	Internal market	13.30.10. Motor vehicles
Industry: chemical	Internal market	13.30.19. Fertilisers
Industry: cosmetics	Internal market	13.30.16. Cosmetics
Industry: foodstuffs	Internal market	13.30.14. Foodstuffs
	Internal market	13.30.14.10. Colouring matters
	Internal market	13.30.14.20. Preservatives
	Internal market	13.30.14.30. Other provisions
Industry: general	Internal market	13.40. Internal market: policy relating to undertakings
	Internal market	13.50. Miscellaneous
	Internal market	13. Industrial policy and internal market
	Internal market	13.10. Industrial policy: general, programmes, statistics and research
	Internal market	13.10.10. General
	Internal market	13.10.20. Programmes and statistics
	Internal market	13.10.30. Research and technological development
	Internal market	13.10.30.10. General principles

	Internal market	13.10.30.20. Research sectors
	Internal market	13.20. Industrial policy: sectoral operations
	Internal market	13.30. Internal market: approximation of laws
	Internal market	13.30.05. General, programmes
	Internal market	13.40. Internal market: policy relating to undertakings
	NA	06.20.10.20. Other production and processing activities (225)
	Internal market	13.50. Miscellaneous
Industry: insurance	NA	06.20.20.10. Insurance
Industry: iron and steel	Internal market	13.20.10. Iron and steel industry
	Internal market	13.20.10.10. Competition: prices and other conditions of sale
	Internal market	13.20.10.20. Other measures relating to iron and steel
Industry: medicinal products	Internal market	13.30.15. Proprietary medicinal products
Industry: other goods	Internal market	13.20.70. Other industrial sectors
	Internal market	13.30.12. Metrology
	Internal market	13.30.13. Electrical material
	Internal market	13.30.18. Dangerous substances
Industry: other services	NA	06.20.20. Service activities
	NA	06.20.20.60. Personnel services
	NA	06.20.20.70. Services provided to undertaking
	NA	06.20.20.80. Other service activities
Industry: real estate	NA	06.20.20.40. Real property
Industry: shipbuilding	Internal market	13.20.20. Shipbuilding
Industry: telecom	Internal market	13.20.60. Information technology, telecommunications\
Industry: textiles	Internal market	13.20.40. Textiles
	Internal market	13.20.50. Leather, hides, skins and footwear
	Internal market	13.30.17. Textiles
Industry: tourism	NA	06.20.20.50. Leisure services
Justice and human rights	Social policy	05.20.05.10. Anti-discrimination
	Social policy	05.20.05.20. Gender equality

	Justice	19. Area of freedom, security and justice
	Justice	19.01. General
	Justice	19.10. Free movement of persons
	Justice	19.10.10. Elimination of internal border controls
	Justice	19.10.20. Crossing external borders
	Justice	19.10.30. Asylum policy
	Justice	19.10.30.10. Right to asylum
	Justice	19.10.30.20. Right of refugees and displaced persons
	Justice	19.10.40. Immigration and the right of nationals of third countries
	Justice	19.20. Judicial cooperation in civil matters
	Justice	19.30. Police and judicial cooperation in criminal and customs matters
	Justice	19.30.10. Police cooperation
	Justice	19.30.20. Judicial cooperation in criminal matters
	Justice	19.30.30. Customs cooperation
	Justice	19.40. Programmes
	Justice	19.50. External relations
Regional development	Regional development	14. Regional policy and coordination of structural instruments
Social policy	Social policy	05. Freedom of movement for workers and social policy
	Social policy	05.07. Statistics
	Social policy	05.10. Freedom of movement for workers
	Social policy	05.20. Social policy
	Social policy	05.20.05. General social provisions
	Social policy	05.20.10. European Social Fund (ESF)
	Social policy	05.20.10.10. Organisation and reform of the ESF
	Social policy	05.20.10.20. Administrative and financial procedures of the ESF
	Social policy	05.20.10.30. Operations of the ESF
	Social policy	05.20.20. Working conditions
	Social policy	05.20.20.10. Safety at work
	Social policy	05.20.20.20. Wages, income and working hours
	Social policy	05.20.20.30. Industrial relations
	Social policy	05.20.30. Employment and unemployment

	Social policy	05.20.30.10. Programmes and statistics
	Social policy	05.20.30.20. Protection of workers
	Social policy	05.20.30.30. Employment incentives
	Social policy	05.20.40. Social security
	Social policy	05.20.40.10. Principles of social security
	Social policy	05.20.40.20. Application to migrant workers
	Social policy	05.20.50. Approximation of certain social provisions
Taxation	Taxation	09. Taxation
	Taxation	09.10. General
	Taxation	09.20. Direct taxation
	Taxation	09.20.10. Income tax
	Taxation	09.20.20. Corporation tax
	Taxation	09.20.30. Elimination of double taxation
	Taxation	09.30. Indirect taxation
	Taxation	09.30.10. Turnover tax/VAT
	Taxation	09.30.20. Excise duties
	Taxation	09.30.30. Taxes on capital and transactions in securities
	Taxation	09.40. Other taxes
	Taxation	09.50. Prevention of tax evasion and avoidance
Trade: external	NA	02.20. Basic customs instruments
	NA	02.20.10. Customs tariffs
	NA	02.20.10.10. Common Customs Tariff
	NA	02.20.10.20. ECSC unified tariff
	NA	02.20.10.30. European Community's integrated tariff (TARIC)
	NA	02.20.20. Value for customs purposes
	NA	02.20.30. Origin of goods
	NA	02.20.30.10. Common definition used in non-preferential traffic
	NA	02.20.30.20. Rules of origin
	NA	02.20.30.21. EFTA countries
	NA	02.20.30.22. Mediterranean countries
	NA	02.20.30.23. ACP states and OCT
	NA	02.20.30.25. Countries benefiting from the system
Trade: internal	NA	02.40. Specific customs rules
	NA	02.40.10. Movement of goods
	NA	02.40.10.10. Free movement of goods

	NA	02.40.10.11. Community transit
	NA	02.40.10.12. Other arrangements concerning movement of goods
	NA	02.40.10.13. Turkey
	NA	02.40.10.20. Extra-Community trade: EFTA agreements
	NA	02.40.10.30. Export procedures
	NA	02.40.10.40. Elimination of barriers to trade
Transport: air	Transport	07.40. Air transport
	Transport	07.40.10. Competition rules
	Transport	07.40.20. Market operation
	Transport	07.40.20.10. Market access
	Transport	07.40.20.20. Route distribution
	Transport	07.40.20.30. Prices and terms
	Transport	07.40.30. Air safety
	Transport	07.40.40. Structural harmonisation
	Transport	07.40.50. International relations
	Transport	07.40.50.10. Consultation procedure
	Transport	07.40.50.20. Conventions with non-member countries
Transport: general	Transport	06.20.20.30. Transport
	Transport	07. Transport policy
	Transport	07.05. General
	Transport	07.07. Statistics
	Transport	07.10. Transport infrastructure
	Transport	07.10.10. Coordination and investment
	Transport	07.10.20. Financial support
	Transport	07.10.30. User tariffs
	Transport	13.60. Trans-European networks
Transport: land	Transport	07.20. Inland transport
	Transport	07.20.10. Competition rules
	Transport	07.20.20. State intervention
	Transport	07.20.30. Market operation
	Transport	07.20.30.10. Market monitoring
	Transport	07.20.30.20. Market access
	Transport	07.20.30.30. Transport prices and terms
	Transport	07.20.40. Structural harmonisation
	Transport	07.20.40.10. Technical and safety conditions
	Transport	07.20.40.20. Social conditions
	Transport	07.20.40.30. Taxation

Transport: maritime	Transport	07.20.50. Combined transport
	Transport	07.20.60. ECSC provisions
	Transport	07.30. Shipping
	Transport	07.30.10. Competition rules
	Transport	07.30.20. Market operation
	Transport	07.30.20.10. Market monitoring
	Transport	07.30.20.20. Code of conduct for liner conferences
	Transport	07.30.20.30. Market access
	Transport	07.30.30. Safety at sea
	Transport	07.30.40. Structural harmonisation
	Transport	07.30.40.10. Technical conditions
	Transport	07.30.40.20. Social conditions
	Transport	07.30.40.30. Taxation
	Transport	07.30.40.40. Flags, vessel registration
	Transport	07.30.50. International relations
	Transport	07.30.50.10. Consultation procedure
	Transport	07.30.50.20. Conventions with non-member countries

**Table A2. Additional multi-level models of interest group mobilization in the EU.**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
	<b>Semesters</b>	<b>Years</b>	<b>Directives</b>	<b>EP only</b>
<i>Fixed effects</i>				
Intercept	0.31 (2.34)	-1.58 (8.42)	19.70 (5.09)***	20.87 (4.67)***
Lagged Interest Groups	0.90 (0.03)***	0.78 (0.06)***	0.29 (0.07)***	0.26 (0.07)***
Lagged Legislation	0.14 (0.13)	0.22 (0.29)	0.51 (0.24)	0.04 (0.16)
Type of policy area				
<i>social vs. business</i>	28.00 (11.78)	84.88 (45.31)	25.07 (17.08)	21.52 (11.69)
<i>other vs. business</i>	10.97 (8.29)	26.92 (29.49)	-7.71 (9.96)	-8.70 (8.39)
Interaction Lagged Interest Groups: Policy				
<i>social vs. business</i>	-0.31 (0.12)*	-0.65 (0.29)	0.13 (0.13)	0.09 (0.12)
<i>other vs. business</i>	-0.30 (0.23)	-0.37 (0.54)	-0.04 (0.20)	-0.01 (0.19)
Interaction Lagged Legislation: Type of policy area				
<i>social vs. business</i>	0.49 (0.28)*	1.14 (0.66)	-0.72 (0.42)	-0.32 (0.31)
<i>other vs. business</i>	-0.19 (0.14)	-0.32 (0.52)	0.60 (1.57)	0.76 (0.65)
<i>Random effects</i>				
Policy area: Varying Intercepts	0.00	10.67	13.66	12.37
Policy area: Varying Slopes for Interest Groups	0.00	0.05	0.03	0.05
Policy area: Varying Slopes for Legislation	0.00	0.56	0.12	0.05
<i>Residual</i>	12.50	25.52	8.01	8.03
<i>Model fit( Akaike Information Criterion)</i>	1450	860.3	2252	2601.8
<i>Number of time periods</i>	12	6	25	25

*Dependent variable: Number of newly registered interest groups in a policy area. Number of groups (policy areas): 15 [13 for the directive only model]*

**Table A.3. Additional multi-level models of legislative activity in the EU.**

<b>Variable</b>	<b>Model 1</b>	<b>Model 2</b>	<b>Model 3</b>	<b>Model 4</b>
	<b>Semesters</b>	<b>Years</b>	<b>Directives</b>	<b>EP only</b>
<i>Fixed effects</i>				
Intercept	20.08 (8.75)	8.34 (4.26)	2.99 (1.04)	4.62 (2.05)
Lagged Interest Groups	-0.09 (0.19)	0.02 (0.04)	-0.03 (0.01)	-0.04 (0.02)*
Lagged Legislation	0.13 (0.12)	0.63 (0.12)***	0.08 (0.08)	0.25 (0.06)***
Type of policy area				
<i>social vs. business</i>	23.05 (21.36)	-25.75 (25.62)	7.51 (3.80)	5.76 (5.05)
<i>other vs. business</i>	-9.71 (15.55)	6.94 (14.29)	-3.12 (2.09)	0.09 (0.07)
Interaction Lagged Interest Groups: Policy				
<i>social vs. business</i>	-0.12 (0.41)	0.18 (0.16)	-0.04 (0.04)	-0.04 (0.05)
<i>other vs. business</i>	0.67 (0.36)	-0.24 (0.26)	0.05 (0.06)	0.09 (0.07)
Interaction Lagged Legislation: Type of policy area				
<i>social vs. business</i>	-0.25 (0.26)	-0.23 (0.27)	-0.10 (0.14)	-0.02 (0.11)
<i>other vs. business</i>	-0.23 (0.19)	0.31 (0.14)*	-0.12 (0.46)	-0.28 (0.24)
<i>Random effects</i>				
Policy area: Varying Intercepts	23.00	0.94	2.65	5.71
Policy area: Varying Slopes for Interest Groups	0.49	0.05	0.02	0.04
Policy area: Varying Slopes for Legislation	0.19	0.05	0.06	0.03
<i>Residual</i>	6.57	13.41	2.35	3.06
<i>Model fit( Akaike Information Criterion)</i>	1300.6	753.2	1556.3	1998.9
<i>Number of time periods</i>	12	6	25	25

*Dependent variable: Number of new legal acts proposed in a policy area. Number of groups (policy areas): 15 [13 for the directive only model]*