

**INTEREST GROUPS, INCENTIVES TO COOPERATION AND
DECISION-MAKING PROCESS IN THE EUROPEAN UNION**

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De conformidad con la base quinta de la convocatoria del Programa de Estímulo a la Investigación, este trabajo ha sido sometido a evaluación externa anónima de especialistas cualificados a fin de contrastar su nivel técnico.

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Interest Groups, Incentives to Cooperation and Decision-Making Process in the European Union

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Abstract

The existence of transaction costs, among which we have to remark imperfect information, serve to the European Commission to justify the participation of interest groups in the decision making-process. In this paper, the informational problem is modelled by means of an agency relationship, which allows us to analyse the informational asymmetries that exists between the participants. In this context, we study the economic rationale of the contract through which the European Commission gives incentives to the Interest Groups to behave as information producers and, in particular, we analyse the incentives to cooperation among interest groups as a result of the optimal design of contracts with respect to the making and taking of political decisions within the sphere of the European Union.

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Key Words: European Union, Interest Groups, Decision-Making Process, Imperfect Information.

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1. Introduction

The transmission of information from informed interest groups to uninformed policy makers is very important in determining policy outcomes.

Our paper study the possibilities that the European Commission, in his efforts of obtaining information to make sure that his proposals are reached in the decision-making process, promotes a contract to incentive the Interest Groups to behave as information producers. This contract is formalized by means of an agency relationship, due to the fact that in its design we have to take into account the existence of imperfect information European Commission has with respect to the actions of the Interest Groups, see García Lorenzo (2003). Therefore, the non observability of the effort made by the Interest Groups in its role as information producers requires using a control system that generates the right incentives.

In this context, we establish the conditions under which Interest Groups, in its role as information producers, may find profitable to act cooperatively instead of independently and at the same we analyse the incentives that emerge from the optimal design of the contracts.

The literature that studies interest groups has been growing considerably for the past two decades. There are numerous papers that take a look at the role and behaviour of interest groups in the political sphere. These include a wide variety of models, from rent-seeking or information transmission lobbying to analysing the possible effects of different institutional settings or voting rules. For a more comprehensive analysis, see Austen-Smith (1997), van Winden (1999), Grossman and Helpman (2001) and Reuben (2002).

Information asymmetries are introduced by assuming that interest groups are perfectly informed, or at least more informed, than the policymaker. Successful information transmission will depend on the position of the interest group's ideal policy outcome relative to the policymaker's. Crawford and Sobel (1982) analyze this model when there is only one interest group to inform the policymaker. There are several extensions to Crawford and Sobel's analysis (see for example, Farrell and Rabin (1996), Krishna and Morgan (2001), Banerjee and Somanathan (2001) and Battaglini (2002)).

It is not very realistic to assume that, in politics, transmitting information to policymakers is costless. For this reason, models in which there is a cost to communication have been developed, see for example, Potters and van Winden (1992), Austen-Smith (1995) and Lohmann (1993, 1995).

Most of the information literature has concentrated on the information transmission between the interest group and the policymaker. It has neglected to look into the information flow among and within the interest groups. Differing network structures among groups, group size, and the channels that are used for communication might have important consequences on how the group behaves and how individuals perceive that behaviour, see for example Grossman and Helpman (2001).

The remaining of the paper is set out in the following way: section 2 formally presents a principal-agent model that study the incentives Interest Groups have to act cooperatively when the European Commission hires them as information producers. In section 3 we offer our main conclusions.

2. The Model

It might be said that transaction costs act as a way for the EC to justify the participation of interest groups in the decision-making process but it should be underlined that the information produced is imperfect. We should ask ourselves, therefore whether the interest groups, who enjoy important advantages when it comes to acquiring information, should receive certain incentives from the EC. These incentives would be regulated contractually and would allow the interest groups to become more profoundly integrated into the decision-making process acting in the role of information producers.

It would be of advantage to the interest groups to participate in policy making since they would be able to augment their credibility by transmitting all the information at their disposal whilst at the same time advancing documented opinions or preferences.

We are going to set up a model in which we are able to compare two alternative scenarios for the interest groups: Act independently in the production of information or cooperate to acquire it.

It is assumed that each interest group needs to exert an effort (e), which may have a value of between 0 and 1. In short:

($e = 1$): Maximum effort, implying the correct evaluation of the problem.

($e < 1$): Indicating that the effort is below maximum, thus leading to an inexact evaluation of the problem.

Further, it is supposed that even though the effort made by the interest group is not observable by the EC, and as such cannot be included in the terms of the contract offered to the group,

the result of the effort¹ can be reflected by means of a noisy indicator (β)². This indicator can take a value of 0 or 1 and is affected by a source of noise if and when a maximum effort achieves the correct evaluation of a problem and therefore veracious and reliable information. This does not imply that the estimator must be exactly equal to one for it to act deterministically, but rather that its value must approach 1 with a certain probability according to the effort made³.

a) Solution of the model when interest groups act independently

We may therefore define the probabilities associated with the indicator which are conditioned to the effort carried out by the interest group, in the following way:

$$p[\beta = 1/e < 1] = q$$

$$p[\beta = 1/e = 1] = r$$

$$p[\beta = 0/e < 1] = 1 - q$$

$$p[\beta = 0/e = 1] = 1 - r$$

If it is assumed that the probability of the indicator being correct is greater than the probability of it being incorrect, then the following expression must hold true:

$$1 > r > q > 0$$

Formally, we suppose that the preferences of the information-producing group may be expressed in the form of a utility function given by:

$$(1) \quad V(w, e) = U(w) - eK$$

Where (w) represents the payment that the group receives for its collaboration with the EC⁴, (K) is a positive real valued scalar, and $U(\cdot)$ is twice continuously differentiable and bounded, by $U'(\cdot) > 0$ and $U''(\cdot) < 0$. In the same way the inverse function may be written as:

$$\psi(\cdot) \equiv U^{-1}(\cdot)$$

In accordance with the outline we have given, the general set up of the game we propose to deal with is as follows: First, the EC decides on the contract that they are going to offer the interest group. The interest group then accepts or rejects the contract depending on its terms. In order to understand the nature of the difficulties with which the EC is faced prior to designing the contract, it should be pointed out that, when the conditions for obtaining information and the effort required to obtain it are asymmetric, it is possible for the EC to propose the amount of effort it would wish the group to exert, but it is not possible to reflect this in the terms of the contract. As a consequence, the EC must take into consideration the fact that once the contract has been signed, the interest group can choose the level of effort, which is most advantageous from their point of view given the nature of the contract. In short, the EC may propose a certain level of effort, but should ensure that this corresponds to the level that the interest group really wants to exert.

Given that the effort made by the interest group benefits the EC, it is highly likely that the EC will offer a contract that induces it to exert the maximum effort ($e = 1$). In doing so it achieves two goals; on the one hand it allows the EC to ensure that the information used in the elaboration of policy is reliable and thus helps to prevent the proposals from being discredited at the Council of Ministers, and on the other, it clears up any doubts that might remain with respect to the credibility of the information-producing interest groups. The contract therefore may be expressed in the following way:

$$\Lambda(\beta) = W^H, \text{ if } \beta = 1$$

$$\Lambda(\beta) = W^L, \text{ if } \beta = 0$$

Where (W^H) and (W^L) represent the payments made by the EC to the interest group⁵.

Formally, the expression for the expected utility of the interest group as a function of effort may be written as follows:

$$(2) \quad EU(e = 1) = rw^H + (1-r)w^L - K$$

$$(3) \quad EU(e < 1) = qw^H + (1-q)w^L - eK$$

Where $U(W^H) = w^H$ and $U(W^L) = w^L$.

In order to calculate the optimum contract⁶, the EC must find a solution to the following programme:

$$(4) \quad \text{Min}_{[w^H, w^L]} r\psi(w^H) + (1-r)\psi(w^L)$$

subject to (5) and (6).

$$(5) \quad rw^H + (1-r)w^L - K \geq \underline{V}$$

$$(6) \quad (r-q)(w^H - w^L) \geq K(1-e) \quad \forall e \in [0,1]$$

Where (5) ensures that an individually rational (IR) group accepts the contract ($EU(e = 1) > \underline{V}$). And equation (6) ensure incentive compatibility (IC) in order to motivate the group to select ($e = 1$). This equation reflects the fact that the interest group is willing to choose the option that the EC proposes ($e = 1$) if that option maximizes its objective function, which is $EU(e = 1) \geq EU(e < 1)$. Since the (IC) constraint will be most binding for ($e = 0$), we can rewrite it as: $(r-q)(w^H - w^L) \geq K$.

After solving for first-order optimality conditions, we reach the following results:

$$\bar{w}^L = \underline{V} - K \frac{q}{r-q}$$

$$\bar{w}^H = \underline{V} + K \frac{1-q}{r-q}$$

The solution to the programme resolved by the EC in order to design the optimum contract may be defined in the following way:

$$(7) \quad \bar{W}^H = \psi \left[\underline{V} + K \frac{1-q}{r-q} \right]$$

$$(8) \quad \bar{W}^L = \psi \left[\underline{V} - K \frac{q}{r-q} \right]$$

Where (\bar{W}^H) and (\bar{W}^L) represent the optimum values for the payments made by the EC to the interest group.

From this result, the following conclusion may be drawn:

The interest group's expected utility, considering the payments made by the EC and equation (1), is equal to the reserve utility (see appendix 1 for demonstration): $V(w, e) = \underline{V}$

b) Solution of the model when interest groups act cooperatively

In this scenario we suppose that the each interest group produces information and the contract the EC offers to them is of identical characteristics. Furthermore, we assume that if cooperation is more profitable than act independently, they will share the payments in the same proportion¹.

¹ This assumption implies a moral hazard problem. However, this problem can be overcome considering a perfect internal monitoring mechanism.

Considering the participation of two interest groups (g_1 and g_2), the probabilities associated with the indicator which are conditioned to the effort carried out by the interest groups can be defined in the following way:

$$p[\beta_{g_1} = 1, \beta_{g_2} = 1 | e < 1] = q^2$$

$$p[\beta_{g_1} = 1, \beta_{g_2} = 1 | e = 1] = r^2$$

$$p[\beta_{g_1} = 1, \beta_{g_2} = 0; \beta_{g_1} = 0, \beta_{g_2} = 1 | e < 1] = 2q(1 - q)$$

$$p[\beta_{g_1} = 1, \beta_{g_2} = 0; \beta_{g_1} = 0, \beta_{g_2} = 1 | e = 1] = 2r(1 - r)$$

$$p[\beta_{g_1} = 0, \beta_{g_2} = 0 | e = 1] = (1 - r)^2$$

$$p[\beta_{g_1} = 0, \beta_{g_2} = 0 | e < 1] = (1 - q)^2$$

As it was previously mentioned, the EC induces each group to exert the maximum effort ($e = 1$). Therefore the contract may be expressed as follows:

$$\Lambda(\beta) = W^H, \text{ if } \beta_{g_1} = 1, \beta_{g_2} = 1$$

$$\Lambda(\beta) = W^L, \text{ if } \beta_{g_1} = 0, \beta_{g_2} = 0$$

$$\Lambda(\beta) = W^{LH} = \frac{W^H + W^L}{2}, \text{ if } \beta_{g_1} = 1, \beta_{g_2} = 0; \beta_{g_1} = 0, \beta_{g_2} = 1$$

Where (W^H) and (W^L) represent the payments made by the EC to the interest groups.

Taking into account that the interest groups are risk averse, they will accept a lower payment when the uncertainty about the estimation of their effort by the European Commission vanishes. Therefore, the European Commission will hold higher payments when there is uncertainty in the estimation of the effort made by the interest group in comparison with the situation in which the

uncertainty vanishes.

Therefore, in mathematical terms the result we have is the following one:

$$w^{LH} > \bar{w} \quad \text{where} \quad \bar{w} = \frac{\bar{w}^H + \bar{w}^L}{2}$$

This result can be easily obtained applying Jensen's inequality.

Taking into account the above equations, we can express the expected utility for each interest group of the payments made by the European Commission in the following way:

$$(9) \quad EU(e=1) = r^2(\bar{w}^H) + 2r(1-r)w^{LH} + (1-r)^2\bar{w}^L - K$$

And after substitute \bar{w}^H and \bar{w}^L for their values obtained in the first order optimality conditions we get:

$$(10) \quad EU(e=1) = r^2(\underline{V} + K \frac{1-q}{r-q}) + 2r(1-r)w^{LH} + (1-r)^2(\underline{V} - K \frac{q}{r-q}) - K$$

$$(11) \quad EU(e=1) = r^2(\underline{V} + K \frac{1-q}{r-q}) + 2r(1-r)(w^{LH} + \bar{w} - \bar{w}) + (1-r)^2(\underline{V} - K \frac{q}{r-q}) - K$$

The expression we get for the expected utility for each interest group of the payments made by the European Commission is the following one²:

$$(12) \quad EU(e=1) = \underline{V} + K + 2(w^{LH} - \bar{w})r(1-r) - K$$

$$(13) \quad V(w,e) = \underline{V} + 2(w^{LH} - \bar{w})r(1-r)$$

Taking into account that $w^{LH} > \bar{w}$, the expected utility by each interest group is higher in the

case where they act cooperatively than when they do not.

3. Conclusions and future extensions

In this paper we assign to the interest groups the role of information producers that are able to solve the inefficiencies that arise from the existence of incomplete information in the decision-making process in the European Union. A continuous relationship between interest groups and the European Commission generates a good reputation for them and can also be seen as a positive sign in their identification in the political market. Therefore, this kind of relationships is good both for the European Commission and for the Interest Groups, and in consequence it will tend to consolidate for a long period of time.

Within this context, using the framework of the agency theory, we incorporate into a model the role of interest groups as information producers and we examine under which conditions they would have incentives to cooperate in the production of information.

The results of the model have shown us that the interest group's expected utility when they act independently is equal to the reserve utility, while it increases when they act cooperatively. Therefore we can conclude that there are incentives to cooperation in the production of information among interest groups. Finally, given that the expected utility of the interest groups increases when they cooperate, the European Commission could decrease the conditions of the contract and therefore diminishing the costs of getting information.

In the model we have proposed, the assumption of perfect internal monitoring vanishes the risks that the benefits of cooperation disappear due to a moral hazard problem. Therefore, a

² See appendix 2 for computations

fruitful research avenue would be to characterize the equilibrium under conditions of costly internal monitoring.

It is commonly assumed that interest groups are experts acquiring information, however, if it is a matter of expertise it is not very plausible that there are not enough qualified experts for the government to select one with whom it shares similar preferences over policy. To sum up, a more satisfactory explanation of how information is acquired by interest groups should be put forward.

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NOTES

¹ The utility from introducing the result into the contract, is derived from the information it provides concerning the effort exerted by the group. This constitutes its only value given that we consider that the EC is neutral with respect to the risk, and the interest group is adverse to it.

² It will be in the EC's interest to include within the contract any mechanism which might provide information about the behaviour of the interest group taking part.

³ The extent to which the Council of Ministers' proposals are found to be acceptable, may be used as an indicator of the effort which the interest group exerts, on evaluating the problems that arise within the framework of the contractual relationship with the EC. Thus if ($\beta = 1$), then the proposal has been accepted and this reveals the correct evaluation of the problem. Conversely if ($\beta = 0$), then the proposal is rejected which means that the evaluation of the problem was inexact. Further, the indicator is sometimes affected by a source of noise because of the lack of political motivation or simple inertia affecting those governments that make up the Council and this is what sinks the EC's proposals.

⁴ The payment that the interest group receives for acquiring and processing the information might be defined in terms of the esteem in which the EC holds the interest group. Thus, attaining and maintaining a healthy reputation should represent a natural incentive for the said group, and will condition the extent to which the group participates in the future.

⁵ As previously stated, the EC will use the result as a source of information about the behaviour of the interest of the group. As a consequence payment will depend upon the information produced, and this payment will increase in accordance with the result, which in turn will mean that the interest group will tend to increase the effort exerted. Finally we use the letter (H) to indicate a high level of effort and the letter (L) in order to indicate low effort.

⁶ We will study the case when the EC is neutral with respect to the risk and the interest group is averse to it.

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Appendix 1:

$$EU(e = 1) = r\bar{w}^H + (1 - r)\bar{w}^L - K$$

Substituting \bar{w}^H and \bar{w}^L for its optimal values we get

$$EU(e = 1) = r(\underline{V} + K \frac{1-q}{r-q}) + (1-r)(\underline{V} - K \frac{q}{r-q}) - K$$

$$EU(e = 1) = r\underline{V} + rK \frac{1-q}{r-q} - r\underline{V} + rK \frac{q}{r-q} + \underline{V} - K \frac{q}{r-q} - K =$$

$$rK \frac{1}{r-q} - rK \frac{q}{r-q} + rK \frac{q}{r-q} - K \frac{q}{r-q} + \underline{V} - K = \underline{V} + K \frac{r-q}{r-q} - K = \underline{V}$$

Appendix 2:

From expression #10 we have:

$$r^2(\underline{V} + K \frac{1-q}{r-q}) + 2r(1-r)(w^{LH} + \bar{w} - \bar{w}) + (1-r)^2(\underline{V} - K \frac{q}{r-q}) - K \quad (1)$$

$$r^2(\underline{V} + K \frac{1-q}{r-q}) + 2r(1-r)(w^{LH} - \bar{w}) + 2r(1-r)\bar{w} + (1-r)^2(\underline{V} - K \frac{q}{r-q}) - K \quad (2)$$

Taking into account that $\bar{w} = \frac{\bar{w}^H + \bar{w}^L}{2}$ the expression we get

$$r^2(\underline{V} + K \frac{1-q}{r-q}) + 2r(1-r)(w^{LH} - \bar{w}) + 2r(1-r) \frac{1}{2} \left\{ (\underline{V} + K \frac{1-q}{r-q}) + (\underline{V} - K \frac{q}{r-q}) \right\} + (1-r)^2 (\underline{V} - K \frac{q}{r-q}) - K \quad (3)$$

Doing some computations we have:

$$r^2(\underline{V} + K \frac{1-q}{r-q}) + 2r(1-r)(w^{LH} - \bar{w}) + r\bar{w} - r^2\bar{w} + (1-2r+r^2)(\underline{V} - K \frac{q}{r-q}) - K \quad (4)$$

$$2r(1-r)(w^{LH} - \bar{w}) + r(\underline{V} + K \frac{1-q}{r-q}) + (\underline{V} - K \frac{q}{r-q}) \} + (1-2r)(\underline{V} - K \frac{q}{r-q}) - K \quad (5)$$

Now, working with the expression that is after the first sum we have:

$$\begin{aligned} & r(\underline{V} + K \frac{1-q}{r-q}) - r(\underline{V} - K \frac{q}{r-q}) + (\underline{V} - K \frac{q}{r-q}) - K \\ & r\underline{V} + rK \frac{1-q}{r-q} - r\underline{V} + rK \frac{q}{r-q} + \underline{V} - K \frac{q}{r-q} - K \\ & rK \frac{1}{r-q} - rK \frac{q}{r-q} + rK \frac{q}{r-q} - K \frac{q}{r-q} + \underline{V} - K \\ & \underline{V} + K \frac{r-q}{r-q} - K \\ & \underline{V} + K - K \end{aligned}$$

Joining again the first sum with the last expression we get:

$$\underline{V} + 2r(1-r)(w^{LH} - \bar{w}) \quad (6)$$

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