

## Additional Analysis and Notes for

### ‘Biased Ministers, Inefficiency and Control in Distributive Policies: An Application to the EC Fisheries Policy‘

#### European Union Politics 4(1)

##### *The impossibility of improving on Commission’s proposal*

Since the cross-country effect is the same, we can analyse the problem by considering only member state 1, the proposer, and n-1 other similar member states that are labelled 2.

The utility from the Commission’s proposal for each member state is

$$U_i^c = \frac{\beta^2}{2+2(n-1)\gamma} - \frac{\beta^2}{[2+2(n-1)\gamma]^2} - \frac{\gamma(n-1)\beta^2}{[2+2(n-1)\gamma]^2}$$

For the proposer, the problem becomes

$$\max U_1(p_1, p_2) = \beta p_1 - p_1^2 - \gamma(n-1)p_2^2,$$

$$\text{subject to } \beta p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 \geq U_i^c$$

The result can be derived using the following Lagrangian function

$$L(p, \lambda) = \beta p_1 - p_1^2 - \gamma(n-1)p_2^2 - \lambda [\beta p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 - U_i^c]$$

The system to solve is

$$\left\{ \begin{array}{l} \frac{\partial L}{\partial p_1} = \beta - 2p_1 + 2\lambda\gamma p_1 = 0 \\ \frac{\partial L}{\partial p_2} = -2\gamma(n-1)p_2 - \lambda[\beta - 2p_2 - 2\gamma(n-2)p_2] = 0 \\ \frac{\partial L}{\partial \lambda} = \beta p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 - U_i^c = 0. \end{array} \right.$$

The system has three constants ( $\beta, \gamma$  and  $n$ ).  $U_i^c$  is a function of these three constants. We can compute  $\lambda$  as a function of either  $p_1$  or  $p_2$  from the first and second equation, respectively. For

instance, from the first equation  $\lambda = \frac{2p_1 - \beta}{2\gamma p_1}$ . We then substitute this result for  $\lambda$  into the second

equation and derive the value of  $p_2$  as a function of  $p_1$ ,  $\beta$ ,  $\gamma$  and  $n$ . The resulting value of  $p_2$  is then substituted into the third equation to obtain the value of  $p_1$  as a function of  $\beta, \gamma$  and  $n$ .

The only positive and real solution to the system is  $p_i = \frac{\beta}{2+2(n-1)\gamma}$  for  $\forall i$ , which maximises  $U_1$ .

The member state cannot improve on the Commission's proposal and obtain the support from all the other member states. □

***The possibility of improving on Commission's proposal when members of sectoral councils are preference outliers***

When  $\beta' > \beta$ , the utility from the Commission's proposal for each member state is

$$U_i^c = \frac{\beta'\beta}{2+2(n-1)\gamma} - \frac{\beta^2}{[2+2(n-1)\gamma]^2} - \frac{\gamma(n-1)\beta^2}{[2+2(n-1)\gamma]^2}$$

For the proposer, the problem becomes

$$\max U_1(p_1, p_2) = \beta'p_1 - p_1^2 - \gamma(n-1)p_2^2,$$

$$\text{subject to } \beta'p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 \geq U_i^c$$

The Lagrangian function is

$$L(p, \lambda) = \beta'p_1 - p_1^2 - \gamma(n-1)p_2^2 - \lambda [\beta'p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 - U_i^c]$$

The system to solve is

$$\left\{ \begin{array}{l} \frac{\partial L}{\partial p_1} = \beta' - 2p_1 + 2\lambda\gamma p_1 = 0 \\ \frac{\partial L}{\partial p_2} = -2\gamma(n-1)p_2 - \lambda [\beta' - 2p_2 - 2\gamma(n-2)p_2] = 0 \\ \frac{\partial L}{\partial \lambda} = \beta'p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 - U_i^c = 0. \end{array} \right.$$

The system has now four constants ( $\beta, \beta', \gamma$  and  $n$ ).  $U_i^c$  is a function of all four constants.

However, we take exactly the same steps explained in the case above. There are now positive real solutions for  $p_i$  that are a Pareto improvement on the Commission's proposal, namely

whereby  $U_i(p_1^l, \dots, p_n^l) > U_i(p_1^c, \dots, p_n^c)$  for  $\forall i$  and  $i = 1 \dots n$ . This is because  $U_i^c$  takes now lower values than where, as in the previous section, it was not function of  $\beta$ .  $\square$

***Note on the formal model***

More details on the formulation of the utility functions are provided by Lohmann and O’Halloran (1994: 601). In terms of preferences of political actors, our model is a mirror image of Lohmann and O’Halloran’s. For these scholars,  $p$  is tariffs on imports, while, in our case, it is a ‘domestic production’ quota – the TAC. With worsening conditions ( $\beta$ ), legislators would like to increase tariffs on import in their model. In our case, states would instead prefer to decrease quotas. However, the cross-district or cross-state effect of these choices is similar.

***Table of legislative acts analysed***

The table below lists the legislation that represents a net increase in control on member states or in delegation of executive powers to the Commission in the CFP (there are no acts that can be considered a net decrease in control over the states or in Commission’s powers). The second column lists the reasons for the inclusion of these regulations in the data set.

<b>Legal acts specifically referring to control of Member States or to delegation to the Commission</b>	<b>Main features constraining or delegating</b>
Council Regulation (EEC) No 753/80 laying down detailed rules for the recording and transmission of information concerning catches taken by fishing vessels of the Member States	Rules for the recording and transmission of information concerning catches taken by fishing vessels of the Member States
Council Regulation (EEC) No 2057/82 establishing certain control measures for fishing activities by vessels of the Member States	Control measures for fishing activities by vessels of the Member States
Council Regulation (EEC) No 3723/85 amending Regulation (EEC) No 2057/82	Expands provisions concerning the logbook, landings, transshipments and registration of catches. Member States to verify the accuracy of entries in logbooks. Certification of fishing vessels Communication of more detailed or more frequent information about catches to the Commission. Commission to be more fully informed about the irregularities.
Council Regulation (EEC) No 4027/86 amending Regulation (EEC) No 2057/82 establishing certain control measures for fishing activities by vessels of Member States	National Inspectorates’ activities to cover all fishing vessels, further clarification of the duties of Member States to record landings, Commission may request states the means of fulfilling its inspection and monitoring tasks BUT: reparation to Member States if fishing has been

	halted but the state has not exhausted the quota
Council Regulation (EEC) No 2241/87 establishing certain control measures for fishing activities	Consolidation and further control (e.g. when the Commission encounter difficulties, the Commission may request of the Member State concerned the means of fulfilling its task, obligation to make illegal nets unusable).
Council Regulation (EEC) No 3483/88 amending Regulation (EEC) No 2241/87	STRENGTHENING OF THE APPLICATION OF THE FISHERIES CONSERVATION RULES BY IMPROVING CO-OPERATION BETWEEN THE MEMBER STATES IN PREVENTING OVERFISHING; PROVISION TO OBTAIN MORE RAPID AND MORE DETAILED INFORMATION, LICENCING CATCHES TO COUNT AGAINST THE QUOTA OF THE MEMBER STATE OF LANDING IF STATE FAIL TO TAKE EFFECTIVE ACTION
Council Regulation (EEC) No 2847/93 establishing a control system applicable to the common fisheries policy	Community control system applicable to the common fisheries policy to strengthen control of the application of the rules governing conservation of fishery resources.
Council Regulation (EC) No 2870/95 amending Regulation (EEC) No 2847/93	Control and monitoring measures so as to ensure that the system for the management of fishing effort is being complied with
Council Regulation (EC) No 686/97 amending Regulation (EEC) No 2847/93	Efforts on surveillance and control of fishing activities are required to remedy overexploitation of fishstocks. Establishment of a satellite-based vessel monitoring system
Council Regulation (EC) No 2846/98 amending Regulation (EEC) No 2847/93	Simplification, but also reinforcement of controls on fishery products after landing and on transshipment operations. Commission to have remote access to information contained in databases to efficiently carry out control tasks, observation procedures introduced, specific monitoring programmes should be introduced
<b>Legal acts not specifically referring to control and delegation but that include provisions having such effects</b>	
<b>Legislation establishing Community systems</b>	<b>Main features constraining or delegating</b>
Council Regulation (EEC) No 170/83 establishing a Community system for the conservation and management of fishery resources	Community system for the conservation and management of fishery resources
Council Regulation (EEC) No 3760/92 establishing a Community system for fisheries and aquaculture	To improve and extend existing conservation measures as a number of stocks both in Community and non-Community waters have continued to decline. To improve the selectivity of fishing methods and gear for optimum utilization of biological potential and limitation of discards. Introduction of a general Community system of administrative fishing licences. Provisions for the adoption of emergency measures in the event of serious upheaval liable to jeopardize the objectives of the conservation of resources.
<b>TAC related legislation</b>	
Council Regulation (EC) No 847/96 introducing additional conditions for year-to-year management of TACs and quotas	Penalisation rules for over-fishing BUT: Increase flexibility in the use of TACs (though under Commission's and Council's control)
<b>Infringements legislation</b>	
Council Regulation (EC) No 1447/1999 establishing a list of types of behaviour which seriously infringe the rules of the common fisheries policy	Types of behaviour which seriously infringe the rules of the common fisheries policy