BIASED MINISTERS, INEFFICIENCY AND CONTROL IN DISTRIBUTIVE POLICIES: AN APPLICATION TO THE EC FISHERIES POLICY*

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Introduction

This work is motivated by a puzzle, a mismatch between what the literature on coalition behaviour and policy output tells us and what we see in the Common Fisheries Policy (CFP) of the European Community (EC). The literature asserts that legislators do not adopt inefficient policies unanimously. The CFP is a case where the Council of Fisheries Ministers of the Community has taken unanimous decisions over the years that could be considered inefficient by internationally recognised standards.

In so doing, this article aims to contribute to the study of Community legislative and executive politics in two ways. First, it deals directly with the policy implications of an institutional feature that has been traditionally ‘black boxed’ in the study of the Council of Ministers. In this article, we contend that the jurisdictional differentiation into council formations is at the origin of specific patterns of policy output and generates specific types of policy failures. Interestingly, while sectoral differentiation has been dubbed as ‘the most striking feature of the way in which the Council is in practice composed’ (Hayes-Renshaw and Wallace, 1997: 29),³ EC scholars have paid scant attention to the policy implications of this design. In explaining the output of the Common Agricultural Policy (CAP), Fritz Scharpf (1988: 270-1) emphasises the importance of decision rules and styles of decision making, but he pays only a marginal attention to the Council’s internal structure. Christian Henning (2001) provides institutional foundations to the inefficiency of the CAP by extending the legislative game of Baron and Ferejohn (1989). He argues that the inefficiently high subsidises of the CAP, even by international standards, are a direct consequence of the policy bias of the ministers sitting in the Agricultural Council. This article shows how unanimity can generate inefficient outcomes in the EC context, provides empirical evidence of the policy bias of the members of specialised sectoral councils and maps these preferences into the policy output of the CFP.

Secondly, this work analyses how ministers deal with the collective dilemmas that are generated by their own decisions taken within the Council and by the problems of implementation caused by their own national authorities. In other words, we argue that, to the extent that Council policy-making and national
implementation jeopardise policy objectives, ministers will have incentives to delegate executive powers to the European Commission to solve their decision problems (cf. Epstein and O'Halloran, 1999: 219) and to restrain their own national authorities to ensure proper implementation. This section contributes to an increasing body of literature on delegation in the EC. It specifically aims at showing how the link between policy failure and delegation works in the Community.

The paper is organised into three main sections. In the first one, we review how the literature has reached the conclusion that unanimity should not produce inefficient outcomes in games of distributive politics. We then develop a model of distributive politics in the EC and show how, in its standard format, this finding is confirmed. Next, we modify the basic game to explain CFP policy outcomes. In the empirical sections that follow, we test two assumptions at the basis of this game and one proposition. Our main conclusion is that the (Agri-)Fisheries Council of the Community was primarily composed of members with biased policy preferences over the last sixteen years. This has led to a pattern of decisions, combined with national misapplication, that have seriously compromised the conservation objectives of the CFP over the years. Nevertheless, ministers have resorted to the imposition of statutory constraints on their national authorities and delegation to the Commission to escape from the decision problems they faced. We conclude assessing whether we can generalise these results and speculating on the impact of enlargement on common policies.

**Inefficient outcomes and coalitions in games of distributive politics**

In some literature, there is a degree of scepticism in relying on political solutions to market problems. The reason being that various market imperfections, for instance, in the system of property rights, are substituted by a machinery for market intervention whereby political actors pursue their own interests within the peculiar institutional framework of the public sector. The combination of self-interested political behaviour, majority rule and other institutional features can lead to even more economically inefficient outcomes (Shepsle and Weingast, 1982).

Weingast, Shepsle and Johnsen (1981), for instance, argue that expenditures for a project that are earmarked to a specific district are advantageous to its factor owners and are considered benefits by the politician representing the district. The size of a project is likely to be greater than the economically efficient size because the taxation mechanism collectivises the expenditures and the beneficiaries of the project bear only a fraction of the total cost (their tax share). Shepsle and Weingast (1981) show also how legislators can have *ex ante* preferences for universalism (i.e. unanimous decisions) over a lottery of the possible minimal winning coalitions and adopt inefficient programs in games of distributive politics. Their conclusion relies on the distinction between economic and political benefits and, importantly, it requires that the sum of these benefits exceed the tax cost of the projects. If this assumption is relaxed and inefficiency is considered as the adoption of a measure with costs greater than the benefits, universalism and inefficiency are unlikely. Baron (1991; see also Ferejohn et al., 1987) extends to distributive programs the classic work of Baron and Ferejohn (1989) on bargaining in legislatures. He shows that inefficient policies are more likely to be adopted under a closed amendment rule, the more patient the
legislators and the larger the size of the legislature. Crucially, however, these policies are adopted as ‘a consequence of the majoritarian incentive to concentrate the distribution of benefits when the costs are collectivized’ (Baron, 1991: 74). Actually, requiring unanimous cloture of the amendment process is seen as a mechanism to prevent their adoption.  

The surprising efficiency of the oldest decision-making procedure of the Community

An important class of market failures arises from the negative externalities associated with common resource problems (Hardin, 1968). Where there is a pool of scarce resources to which access is not restricted, each user will exploit the resources to the extent that her marginal private cost equals her marginal benefit disregarding the fact that each additional effort of exploitation diminishes the return to all users.

The conservation pillar of the CFP has the primary aim of preventing the over-utilisation of fisheries resources in the EC. This mandate is addressed primarily through the dual logic of effort and exploitation reduction. That is to say, a reduction in fleet sizes is pursued via the structural pillar of the policy while, at the same time, a reduction in the exploitation of critical stocks is undertaken via conservation measures, of which the yearly setting of Total Allowable Catch (TAC) by the Council provides the basic overarching instrument. The principle of relative stability establishes, within this system, that the fleet of each Member State maintains entitlement, over time, to the same percentage of the TAC of each species (Morin, 2000). The annual setting of TAC follows the oldest decision-making procedure of the Community. The European Commission enjoys the sole right to initiate policy measures. The Council adopts the Commission’s proposal by qualified majority voting or amends it by unanimity.

These measures however do not solve the negative externality to which the Community fisheries are subjected. They merely transfer a market problem into a political setting. The annual setting of TAC is a game of distributive politics that resembles the setting of trade tariffs or the adoption of particularistic programs. A model of distributive politics implies a specific preference configuration. We adapt here the formulation put forward by Lohmann and O’Halloran (1994) in their analysis of American trade policy. The utility function of each government \( i \) is:

\[
U_i(p_1, \ldots, p_n) = \beta p_i - p_i^2 - \gamma \sum_{j \in N \setminus i} p_j^2
\]

where \( p_i \) is the country-specific fishery measure (say, the country’s TAC quota under the relative stability key) for \( i \in N = \{1, \ldots, n\} \), \( \beta \) is a weight representing the fishery-specific conditions, \( \gamma \) measures, instead, the negative cross-country effect of setting the measure.

This formulation captures the idea that each member state considers, in setting the measure, the benefits (\( \beta p_i \)) and the costs (\( p_i^2 \)) accruing to the state. Its utility is however also affected by the decisions taken by other member states (\( \gamma \sum p_j^2 \)). The utility of a government is maximised by setting \( p_i = \beta / 2 \), because, for this value, \( \partial U_i / \partial p_i = 0 \). The measure is a function of the fishery-specific conditions but, as
we shall see, this is an inefficiently high level. This is due to the fact that, for a country \( i \), the effect on other member states of setting this measure (the negative externality) is not part of its utility function.

The European Commission has a European-wide constituency and it is more independent from short-term political pressure than the Council (Majone, 1996: 68-78; Moravcsik, 1998: 73-7, 485-9). It is, therefore, more inclined to consider the negative cross-country effect of setting the measures and is more likely to preserve the conservation objectives of the policy. This is similar to the idea that the US President, with a national constituency, tends to take into greater account the negative cross-district effect of setting tariffs (Lohmann and O'Halloran, 1994: 601). The utility function of the Commission can then be expressed as the sum of the utility functions of member states:

\[
U_C(p_1, \ldots, p_n) = \sum_{i=1}^{n} \left( \beta_i p_i - p_i^2 - \gamma \sum_{j \in N \setminus i} p_j^2 \right)
\]

This function internalises the negative externalities, as the value that maximises its utility is \( p^*_i = \frac{\beta}{2 + 2(n-1)\gamma} \), \( \forall i \). The value of \( p_i \) is diminished by the negative affects on other member states of setting this measure, that is \( 2(n-1)\gamma \).

Interestingly, we cannot obtain unanimity and inefficient outcomes with these utility functions and applying the TAC decision-making process. Inefficiency is measured in this case with a value of \( p_i \) exceeding the value \( p^*_i \) that internalises the externality. The process starts with the Commission making a proposal to the Council that maximises its utility. This is the vector \((p^C_1, \ldots, p^C_n)\). Can a member state propose an amendment to the Commission’s proposal that is approved unanimously by the Council?

Assume that member state 1 proposes \((p^I_1, \ldots, p^I_n)\). Its problem can be described in the following terms:

\[
\max U_I(p^I_1, \ldots, p^I_n) = \beta p_i - p_i^2 - \gamma \sum_{j \in N \setminus 1} p_j^2
\]

subject to \( U_j(p^I_1, \ldots, p^I_n) \geq U_j(p^C_1, \ldots, p^C_n) \) for \( j \in N \setminus I \)

Each member state makes a proposal that maximises its utility. However, such proposal must provide at least the same utility to each other member state as the Commission’s proposal does, in order to garner unanimous support. As we show in the appendix, the solution to this system is the vector \((p^C_1, \ldots, p^C_n)\) proposed by the Commission. A member state cannot improve on this proposal and get unanimous support. This result confirms Baron’s (1991) conclusion. Unanimity internalises negative externalities. Surprisingly, the oldest decision-making procedure of the Community seems to be perfectly suited for efficient outcomes.
Producing inefficient policies

Inefficient policies could be produced if we consider members of some sectoral councils as preference outliers (Hix, 1999: 63-8). The US literature on the composition of parliamentary committees is useful here because it allows us to highlight interesting similarities and differences. For this perspective, there are two types of committees. Specialist committees are delegated authority over a policy jurisdiction that is of interest to a few legislators. Generalist committees cover issues of general importance and nearly every member of the legislative body would be interested in serving on one of them. The implication is that generalist committees tend to be more representative of the preferences of the floor’s median legislator than specialist committees (Cox and McCubbins, 1993; Shepsle, 1978). Of course, the assignment process to the sectoral councils (the Council’s analogues to the parliamentary committees) is in the hands of national governments (art. 203 EC) but the jurisdictional boundaries of the meetings lead to a similar division. Some sectoral councils such as General Affairs, EcoFin and Budget, have general responsibilities that cut across many issue areas. They are composed of senior ministers of national cabinets that have to respond to a more variegated set of constituents. Other Council formations such as Agriculture, Fisheries and Industry are more specialised and composed by junior ministers serving well-defined constituencies (Hayes-Renshaw and Wallace, 1997: 29-33). The allocation process of national cabinet portfolios tends also to assign to specialised ministries actors who are in tune with these constituencies (Budge and Keman, 1990). It is, then, reasonable to assert that sectoral councils with a wider jurisdiction are more attentive in balancing and representing different interests, while members of specialised Council formations are more likely to be preference outliers.9

Another important factor to be considered in conjunction with the above is that, whatever the representativeness of parliamentary committees, their activities are controlled by the floor of the legislature through the assignment of amendment procedures to the committees’ proposals. The output of sectoral councils is not subjected to such procedures. There are only three, rather weak, control mechanisms. If issues overlap across the jurisdictions of different Council meetings, the Presidency of the Council is likely to convene certain formations in ‘back-to-back’ format that produces a certain degree of cross-meeting monitoring. If the policy output is jeopardising the objectives of other areas (for instance, the budgetary implications of agricultural price setting), the General Affairs Council, or even the European Council, is likely to intervene to resolve cross-sectoral disputes. Finally, article 2 of the Council’s rules of procedure assigns to the General Affairs Council the power to merge or revoke entirely some Council formations. Control can then be exercised only in limited circumstances, while the last device is a rather extreme measure that has to be weighted against the benefits of specialisation. In conclusion, those sectoral councils that are preference outliers are likely to behave like ‘runaway’ institutions, given the weak control mechanisms. Let’s see how.

Members of the sectoral Fisheries Council could hold more optimistic views of the economic conditions of the fisheries or they could discount negative expectations to a greater extent. This is not unlikely given that these views are generally shared by the organisations of fishermen who are, moreover, small, concentrated and relatively well organised for sustained lobbying of their ministers. Hence,
members of the sectoral Fisheries Council are likely to be preference outliers and they could systematically overestimate the sustainability of fisheries. Their new utility function can be expressed as follows:

$$U_i(p_1, \ldots, p_n) = \beta' p_i - p_i^2 - \gamma \sum_{j \in N \setminus i} p_j^2$$

where $\beta'$ represents the ministers’ expectations about the fishery-specific conditions and $\beta' > \beta$. Now, there is the possibility for a hypothetical member state 1 offering an amendment to the proposal of the Commission that increases its utility and does not diminish other states’ utility (see the appendix). However, this amendment is unlikely to be the equilibrium. Bargaining within the Council is weakly institutionalised, if compared to national legislatures, and the Commission’s proposals are open to any amendments put forward by any member state. Hence, the Council is a small legislature working under an open amendment rule and within which delay is rather costly, at least in our case. Baron and Ferejohn (1989: 1195-8) assert that, under these conditions, we are likely to find universal coalitions that distribute benefits evenly among its members. This implies that the outcome of the amendment process is $p_i = \frac{\beta'}{2+2(n-1)\gamma}, \forall i$. This value is higher than the efficient level and leads to an over-utilisation of the commons and a lower total utility (if computed using the ‘correct’ $\beta$). In conclusion, one of the aims of this work is to test whether members of the Fisheries Council are preference outliers. This is a necessary, though not sufficient, condition for inefficient outcomes.

**Inefficiency, control of implementation and delegation to the Commission**

The model produces also predictions on the implementation of a policy. When the Council adopts a measure, it does not follow that the measure will be executed faithfully. If national administrations are in charge of implementation, there could be ex post incentives to tinker with the policy and to alter the way the measure is enforced and administered at the national level. This could be the result of the lobbying activity of influential national groups that are burdened by the policy. Moreover, ministers of specialised sectoral councils would have a rather accommodating approach to tinkering if their views match those of these groups.

Implementation can be analysed as a straightforward prisoner’s dilemma. Consider the following three games. In the first one, the faithful implementation (FI) game, each government executes the measure $p_i^{FI}$

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

In the unilateral non-compliance (UN) game, one government does not comply, while the others do. The measures are $p_i^{UN} = \textbf{Errore.}$, and $p_j^{FI} = \textbf{Errore.}, \forall j \in N \setminus i$. The utility for the non-compliant state is
Finally, in the non-compliance (NC) game, governments adopt the measure $p_i^{NC} = \text{Errore.}, \forall i$. The utility of each member state is

$$U_i^{NC} = \frac{\beta^2}{2} - \frac{\beta^2}{4} - \frac{\gamma(n-1)\beta^2}{4}.$$

Starting with the faithful implementation game, each state has an incentive not to comply because $U_i^{UN} > U_i^{FI}$. The end result is hence no compliance for all member states. However, this is clearly a suboptimal outcome as $U_i^{FI} > U_i^{NC}$.

A way to avoid this result is to rely on the Commission for implementation (the CI game) where $p_i^{CI} = \frac{\beta}{2+2(n-1)\gamma}, \forall i$. The governments’ utility is

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

The reliance on the Commission is not without risk because the values of beta differ (i.e. $\beta' > \beta$). Implementation by the Commission is preferred to no compliance (i.e. $U_i^{CI} > U_i^{NC}$) in two cases: a) if $\gamma < 1/(n-1)$ and $\beta' < \beta / [1 - \gamma(n-1)]$ or b) if $\gamma > 1/(n-1)$. This is an interesting result. All else being equal, we should expect greater reliance on the Commission with an increase of the number of member states or an increase of the inter-country effect. Importantly, this outcome should occur regardless of the difference between $\beta'$ and $\beta$. In games of distributive politics, where the utility function of the Commission is the sum of the utility functions of member states, the likelihood of delegation to the Commission is not a function of the divergence of preferences between the Commission and the Member States (in our case, such divergence is measured by $\beta' - \beta$). This is a small step toward Majone’s (2001a) call for a positive theory of nonmajoritarian institutions and it shall be subject to empirical test below.12

In the remaining part of the article, we test the two assumptions of the model about actors’ preferences and the prediction developed in this section. We will also show how policy preferences map into policy output.

**Policy preferences and the Common Fisheries Policy’s conservation pillar**

The CFP seeks to provide a unified approach to the creation of a sustainable fishing industry in Europe. This includes the restructuring and development of a common fishing fleet, a common fisheries market, a unified stance in regional negotiations and, most controversially, a common approach to the management and conservation of fisheries resources. Since the inception of the conservation pillar in 1983, there has been much critique of the willingness of member states to implement and police the system of TAC and quotas at the national level. However, very little light has been shed on the extent to which institutions at the EC level may influence outcomes.
The system of TAC covers mostly stocks from the Barents to the North Sea, the Skagerrak and Kattegat, the Baltic Sea, and the Western Community waters from West Scotland to West Portugal. The Northeast Atlantic is one of the busiest fishing areas in the world, averaging over 70 percent of the EC catch, and the stocks that exist within its waters have, one by one, suffered the consequences of technology and demand for fish. In particular, the North Sea, bordered by some of the world’s oldest fishing nations, has been and continues to be heavily exploited for both fish for human consumption and fish for industrial use. In determining catches and quotas, the EC might have to negotiate with third countries in establishing an overall TAC for the region as a whole on a stock-by-stock basis. Once this overall TAC has been agreed and the EC awarded its portion, most EC TACs are, then, been apportioned between the member states according to the principle of relative stability. The allocation of quotas, using this principle, is arguably the most political aspect of the EC’s CFP. It brings to a head all of the conflicting elements that the policy attempts to address and pits member state against member state as the ministers meet in December to allocate the yearly quotas proposed by the Commission and make decisions concerning any stocks deemed to be in crisis. Hence, the key actors whose preferences we analyse are the members of a specialised Council formation, the Fisheries Council, and the Commission.

Members of specialised Council formations: the Fisheries Council

The first assumption of our model is that members of a specialised Council formation, such as the Fisheries Council, tend to be preference outliers. We are interested in the period from 1984, when the first TAC and quotas were officially put in place under this system, to 1999. We have collected information on the partisan composition of the governments of the member states throughout this 16-year period. We have used three indicators of policy preferences available from the data set of Budge, Klingemann et al. (2001) that have computed preferences by analysing parties’ electoral manifestos. The first two measures are the attitude of parties toward a) environmental protection and b) agriculture and farming. High values mean that parties pay greater attention to environmental issues or support policies benefiting farmers. The first category is the most closely related to the setting of TAC. The conservation pillar of the CFP has strong environmental relevance because it focuses on the sustainability and replenishment of fish stock. The second category is broader. However, attitudes toward fishermen are normally subsumed under the more general heading of agricultural policy, given that farmers consist of a numerically greater social group. In other words, we assume that policy preferences toward farmers are a good proxy for preferences toward fishermen. The third measure is the broadest. It is the party placement on a left-right scale centred on zero and taking (negative) positive values for a (left-) right-wing position.

Next, we have computed a measure of government preference using the following formula (see Budge et al., 2001: 166):

\[
\sum_{i=1}^{n} \frac{\text{Preference}_i \times \text{No. Posts}_i}{\text{Total Posts}} \quad \text{for } i = 1 \ldots n.
\]
The preference of a government is the sum of the preferences of each party $i$ forming the government weighted by the share of cabinet ministerships held by the relevant party. For instance, the ideology of the eighteenth Irish cabinet (July 89 – February 92) was composed of more than eighty percent by the preferences of Fianna Fail and by about nineteen percent of those of the Progressive Democratic Party. Fianna Fail held thirteen cabinet posts, while the remaining three were allocated to the Democrats. Data on portfolio allocation are collected from Müller and Strøm (2000). We then recorded the party affiliation of the politician holding the fisheries ministry or, as a proxy, the agricultural ministry. The final data set covers 83 governments. The last step consists of summing up the preferences of the members of the (Agri-) Fisheries Council on the first of December of each year and comparing them with the sum of the governmental preferences on the same date. The closer these figures are the less the (Agri-) Fisheries Council is composed by preference outliers.
Figure 1 Preferences of the (Agri-) Fisheries Council and of governments

Note: Gov: Preferences of governments. Council: Preferences of Council’s members
Env: Preferences on environmental protection. Fish(Agr): Support for fishermen (farmers)
Figure 2 Left-right preferences of (Agri-)Fisheries Council and of governments

Note: Gov: Preferences of governments. Council: Preferences of Council’s members
Env: Preferences on environmental protection. Fish(Agri): Support for fishermen (farmers)
Results are shown in Figure 1 and 2. In the first one, we have mapped the preferences with regard to the environment and to the social groups of fishermen (farmers). The results are quite interesting. The collective preference of each specialised council (i.e. the sum of the preference of each member) across the whole period under analysis is consistently more supportive of these groups than their whole governments. However, differences tend first to increase, reaching a peak in 1995-96, and then to diminish in the last two years. This convergence could be the result of food scares across Europe. The recent appointment by Gerhard Schröder of the reputedly anti-farmer Renate Künast of the Green party as the German Agriculture Minister is a case in point. In the 1993 and 1995-97, all members of this Council, with the exception of Denmark and Luxembourg, were at least as or more supportive of fishermen (farmers) than their governments. The pattern is less clear in terms of environmental protection. But, since 1994, members of this specialised Council have been considerably less concerned with environmental issues than their governments. In 1997, only the representatives of Denmark and Ireland came from a party that gave more importance to environmental issues than their government. Figure 2 maps the, more general, left-right preferences. With the exception of 1987, members of the specialised Council have been consistently more right wing than their governments. Across the whole period, only between two and three members of the Council were more left wing than their governments.

Finally, we have also carried out tests to evaluate whether differences are significant. A Z test has rejected the hypothesis that each couple of samples of preferences comes from the same population. Further, since observations are taken in pairs for each year, we have carried out a paired-samples T-test to evaluate whether differences are significant. Results confirm that the means of the government-minister pairs for the measures of fishermen (farmers) support and left-right are significantly distinct. In conclusion, evidence corroborates the expectation that the members of this specialised council formation tend to be preference outliers.

The European Commission

The second assumption of our model is that the preferences of the Commission tend to reflect independent and internationally recognised expert advice. In other words, the Commission tends to make 'efficient' proposals.

In order to test this proposition, it is important to point out that fisheries management decision-making is heavily dependent upon scientific information concerning the state of the resources being discussed. Arguably, the most prestigious and independent institution for fisheries research and analysis is the International Council for the Exploration of the Sea (ICES), a scientific advisory and research body that provides yearly reports on the status of fish stocks in the waters of its member states. ICES’ working groups generate their reports based on information from national logbooks, biological samples and other national statistics, but they also accumulate some of their own data by doing research in the field. The data that is collected from all of the ICES member states is studied in these working groups and assessed, based upon their own findings concerning each stock. The working groups then provide a full report for the ICES’ Advisory Committee on Fisheries Management (ACFM), which has as one of its mandates the
creation of a full yearly report on the state of the EC fisheries and advice on management targets on a stock by stock basis.

The ACFM report is passed on to the Commission late in the fall of each year. This allows the Commission’s own Scientific, Technical and Economic Committee (STECF) an opportunity to debate the points made. Our expectation is that the Commission’s TAC proposals should not vary significantly from the ACFM’s data. If that is the case, proposals are considered efficient because they comply with internationally recognised sustainability criteria and should not lead to an over-utilisation of the fisheries. We have compared the 135 TACs proposed by the Commission for nine fish species in the 1985-99 period with the TAC advised by the ACFM. In the 56 cases where we could match a proposal with an ACFM advice, we have found that the Commission increases the ACFM advice by an average of 0.13 percent. The difference between the ACFM advice-Commission proposal pairs is clearly insignificant. The paired-samples t-statistic is only -0.018. We can assert that Commission’s proposals are efficient, to the extent that we regard ACFM advice as such. Students of the CFP confirm this observation. Lequesne (2000: 357), for instance, states that ‘official in the conservation units of DGXIV regard themselves as “guardians of stocks”’ (see also Gray, 1997: 151). In effect, with the exception of economists who are not represented in ICES, the majority of the STECF members also sits in on either the ACFM meeting or is member of a working group. Though it is not necessarily the case that actors behave similarly within different institutional frameworks, it is not surprising that STECF ‘reports are based to a large extent on those of the [ICES’] Advisory Committee for Fisheries Management’ (European Parliament, 1994: 31).

Policy preferences and policy output

From 1985 to 2000, more that 30 percent of the Commission’s TAC proposals were increased by the Fisheries Council. Increases have averaged 30 percent. This is equivalent to 110 thousand tons per year, or to 80 thousand tons per year, net of the quantities that the Council has reduced. This policy output has seriously jeopardised the conservation objectives of the CFP. The quantities of mature demersal fish in the sea were about 90 percent greater in the early seventies than in the late nineties (Commission of the EC, 2001: 7). North Sea cod and Northern hake stocks have been the subject of emergency measures in recent years by the Commission in an effort to undo some of the damage done by years of over-exploitation. Both of these stocks are now considered by fisheries scientists to be in danger of collapse. As the Commission pointed out and confirmed in these findings, ‘the annual pattern of decision-making has resulted de facto in a dilatory policy of stock management that has failed to safeguard or restore stocks’ (Commission of the EC, 2000: ). The ACFM has estimated that the spawning stock biomass (SSB) and the fishing mortality (F) rates for cod have been at critical levels for fourteen of the past eighteen years. The remaining four years’ data show evidence of F rates above recommended levels and an SSB that was, at the beginning of this year, too low to replenish stocks if fishing continued (ICES, 2000: 102). Hake stocks have also been above what the ACFM refers to as precautionary levels since 1978. In the last decade, with the exception of 1989 and 1995, ACFM calculations of landings of hake in the North Sea have been significantly lower than the TAC. Mortality has regularly been higher than the 28 percent
recommended as the very limit to which exploitation of the resource should be attempted in order to ensure sustainability and SSB rates have only been above the $B_{\text{lim}}$ rate of 120 thousand tons twice (ICES, 2001: 1-9). The Commission now has to organise recovery plans and the 2001 TAC for hake has been reduced to half of the previous year’s, though, ironically, the Commission initially proposed a 74 percent reduction.

In this section, we test whether policy preferences have an impact on policy output. The dependent variable is the difference, for the 1985-2000 period, between the agreed and the proposed TAC for each species and fishing zone. The independent (political) variables are the three measures of policy preferences of Council’s members that we have used above (Environment, Fishermen, Left-Right). We should expect a reduction in the dependent variable as preference for environmental protection increases or as support for fishermen (farmers) diminishes. More caution should be use for predicting the effect of the left-right index because it is a very broad measurement. Nevertheless, a right-wing position implies being less concerned with environmental issues and more interested in the traditional values represented by fishing activities (see Budge et al., 2001: ch. 1), hence more left wing positions should lead to lower increases of the proposed TAC. Finally, a fourth independent variable of political importance (States) is the number of member states whose fleet operates in the relevant fishing zone and harvests the relevant species. This is a measure of the number of interests at play when setting a TAC for a specific fishing zone and species. As we shall see, it is particularly revealing when interacting with the variables on policy preferences.

We include three variables measuring the biological condition for each species, fishing zone and year. The first two are the differences between a) the current SSB level and its precautionary limits (in percentage, $\Delta SSB$) and b) the mean $F$ rate and its precautionary limits ($\Delta F$). We should expect lower increases in TAC as the stock biomass or the fishing mortality approach the precautionary levels. The last variable (TAC Type) is dummy coding whether the TAC is precautionary or analytical.
The results of the OLS regressions are shown in Table 1. The measure of preference that is more precisely linked to the setting of TAC (Environment) is significant with the correct sign. Ministers increase TAC to a less extent when they care more about protecting the environment. The impact is not negligible. If we take the two extreme values of Environment, the increase in TAC when the concern for the environment was at its lowest, in 1984, was almost three thousand tons more than when such concern was at its highest, in 1991. This amounts to the whole 1999 TAC for megrims for the Norwegian and the North Sea. The other two preference variables are significant only when interacting with the number of states that have an interest in the specific zone and species. In this case, ministers tend to augment TAC to a less extent when they more left wing or they are less supportive of fishermen (farmers) only as the number of states increases. In a way, the significant interaction with States is an expected outcome. There are different constellations of interests when setting different TACs, depending on the species, fishing zone and gear. National interests depend upon up- and down-stream industries as well as long traditions of food consumption. For instance, the extent to which national fleets rely on the Northeast Atlantic stocks differs considerably. The UK and Ireland both benefit from protected harvesting zones in the Northeast and, since the equal access principle of the CFP has been derogated throughout the life of the policy, both states benefit from the congruence of their territorial waters to this rich resource pool. The North Sea and the English Channel region are instead of great importance to the Belgian fleet, which exploits nearly half of its valuable sole catch in the eastern North Sea. Denmark, on the other hand, harvests most of its catch within Danish waters with the exception of cod, which it exploits in the North Sea and the Baltic. France’s interests are diverse but species of importance exist within the Bay of Biscay.
and the Mediterranean. She shares the former area and the adjoining Central Eastern Atlantic regions with Spain and Portugal, and the latter area with Italy and Greece. Germany’s interests tend to lie in the more distant waters of the Northwest Atlantic region. Finland focuses on exploiting resources in the Baltic Sea and Sweden splits its emphasis between species in the Baltic and those in the North Sea.22

States is also significant on its own. In model I, for instance, the mere addition of one interest around a specific species leads to an increase of the proposed quantity of TAC of about 370 tons. This is equivalent to Germany’s 1999 quota for cod in the Skagerrak. The first two biological variables are also moderately significant. Ministers increase the proposed quantities by around 55 tons with an increase of ten percent of SSB over the precautionary level. While they reduce them by about 216 tons as the F rate approaches its precautionary level by ten percentage points.

Policy output, national control and delegation to the Commission

The consequences of the institutional design on the Council are not only limited to the establishment of TAC that clearly endangers the conservation objectives of the CFP, but also to the faithful execution of those measures. Most of the times, ministers that sit in the Council are responsible for the implementation of the decisions taken by it. Given their bias, we would be surprised if they have strong incentives to execute those policies in a correct manner. Nevertheless, ministers face a classical prisoner’s dilemma in these circumstances, as we have shown above, and they will have incentives to act at the EC level to offset this potential problem. The proposition derived from our model is that we should expect the Council to restrain national authorities and delegate powers to the Commission in the management of fishery resources with an increase of the number of member states or an increase in the inter-country effect.

First note that any legislative act adopted by the Council implies a certain degree of delegation to the Commission. This is because the Commission, under article 226 of the Treaty, has powers to initiate an infringement proceeding against a member state that fails to fulfil its obligations under Community law. To the extent that an EC law imposes constraints on national authorities, this can also be interpreted as (minimal) delegation to the Commission, even if no provision specifically delegates powers to it. The more detailed those constraints are, the more solid the legal basis is for the Commission to base an infringement proceeding upon. Obviously, the executive role of the Commission is further enhanced if more powers are conferred to it in secondary legislation.

We test this hypothesis both quantitatively and qualitatively. Given the small number of observations, the statistical tests must be complemented by an analysis of legislation. Our data set comprises of fourteen regulations that have been adopted since 1980 and that provide the basis for a net increase in control on member states and in delegation of executive powers to the Commission.23 We have developed two dependent variables. The first one, Laws, is the cumulative number of laws adopted up to the relevant year for the 1984-9 period. The variable starts at three in 1984 and, of course, ends at fourteen in 1999. The second variable, Words, is the number of words of the legislation in force each year. In case of amending regulations, we have considered only the net change in the words number. This variable ranges
from 3777 to 18663, averaging 10066 and a standard deviation of 5766. The use of Words follows the works of Huber, Shipan and Pfahler (2001) and Huber and Shipan (forthcoming) which consider statutes as blueprints for policy execution. According to these scholars, legislators expend a greater number of words in detailing the execution of a policy when they want to exercise greater control on bureaucrats. By analogy, Community legislators should adopt longer statutes when they want greater supranational control on the execution of the CFP by national authorities.

Inter-country effect can be considered as a negative externality which is generated by a misapplication of EC law in a member state and which imposes a cost on the other states. The best proxy that we could use in our context is the amount of By-catch and discards (time-lagged by one year). When fishing takes place outside the fishing season, outside the assigned fishing areas or using inappropriate fishing gear, we are likely to see an increase in by-catch and discards. This leads to a further depletion of the stocks and seriously affects fellow fishermen who comply with the rules. It seems also that some practices tend to vary across national lines, inflaming inter-state conflict.24

Finally the second independent variable is the number of member states (States). In our context, this variable is particularly important given the enlargement to important fishing nations (Spain and Portugal in 1986, Sweden and Finland in 1995).

| Table 2 OLS Estimates and Pairwise Granger Causality Tests of North Sea wide by-catch and discards and legislation |
| OLS Estimates | Dependent variables | Laws | Words |
| Independent variables |  | 9.35e-6 | 0.015 |
| |  | (1.69) | (1.09) |
| Bycatch and discards\(t-1\) | 1.425 | 2732.185 |
| | (6.20)** | (5.03)** |
| States | -11.342 | -2712.01 |
| | (-4.23)** | (-4.25)** |
| Constant | | |
| Adj. R² | 0.81 | 0.72 |
| N | 15 | 15 |

Granger Causality Tests (one year lag)

<table>
<thead>
<tr>
<th>Variables and Direction of Causation</th>
<th>F statistic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bycatch and discards (\rightarrow) Laws</td>
<td>3.79*</td>
</tr>
<tr>
<td>New Words (\rightarrow) Bycatch and discards ((t-1))</td>
<td>3.37*</td>
</tr>
</tbody>
</table>

Note: t-statistics in parentheses. **p< 0.01, *p< 0.1, n=34 for the second Granger causality test.

The results of OLS regressions are shown in Table 2. Only the number of states is significant. An additional member state leads to the adoption of almost one and a half new regulations or to the addition of about three thousand new words to the existing statutes in force. This length is equivalent to regulation 3760/92 establishing a Community system for fisheries and aquaculture. We have also investigated the reason for the insignificance of the first independent variable and suggested a two-way causation. New
acts constraining member states may result from an increase in by-catch and discards. However, the new regulations are designed to increase the supranational control on national authorities and should lead to a decrease in by-catch and discards. There is some support for this thesis, as shown in the results of Granger causality tests in Table 2. We can reject the hypothesis that By-catch and discards does not Granger cause Laws. Similarly, when considering the number of New Words in the legislative instruments adopted each year and the yearly percentage change in by-catch and discards, we can also reject the hypothesis that New Words does not Granger cause By-catch and discards.

Stronger support is provided by a qualitative analysis of the instruments adopted and of the causal mechanisms. In the early eighties, there were two baseline laws. The first one was Regulation 753/80, repealed soon after by Regulation 2057/82, which established control measures for fishing activities by member states’ vessels and laid down rules for the recording and transmission of catch data. The second was Regulation 170/83 establishing a Community system for the conservation and management of fishery resources (the TAC regulation). In the second half of the eighties, it began to emerge, from rather incomplete data, that the by-catch and discards problem was of a sizeable nature. The amounts have increased by an average of twenty percent in the 1984-8 period, from 37 to 115 thousand tons. Regulation 2057/82 has been amended four times in the period between 1985 and 1988. Except for a consolidating measure, these amending laws provided for a moderate strengthening of the application of the fisheries conservation rules and an expansion in the provisions for data collection.

The Council adopted two major reforms in the early nineties, once more accurate data showed that the amount of by-catch and discards in the 1989-91 period was almost double the 1988 level. In the 1992 amendment of the TAC regulation, the Council decided to improve the selectivity of fishing methods and gear in order to limit discards. Article 15 of this regulation confers upon the Commission the power to close fishery resources if the conservation of resources is seriously jeopardised, subject to the variant a of the safeguard procedure. These powers have been used for both cod and hake, as their stocks has been seriously depleted due to high catch and by-catch rates. In December 2000, large portions of the North Sea, the West of Scotland and the Irish Sea have effectively closed during different periods of the year, as a result of a recovery plan.

The second major reform has been Regulation 2847/93 that established a Community system for the monitoring of conservation and other measures. The aim was to ensure the proper implementation of the CFP. Even though the inspection and investigation is carried out only at the national level, member states have to provide a considerable amount of data on their monitoring activities and sampling plans. The regulation provides for detailed rules on landings, sales and quota consumption forecasts. For instance, article 15.3 asserts that if a member states has not transmitted on time data concerning monthly catches, the Commission could deem 70 percent of the quota to be exhausted. Governments must organise regular checks on the structures of the fishing sector (e.g. the renewal of the fishing fleet) and on the marketing standards and price arrangements of fishery products. They must also establish a computerised validation system based on cross-checks and verification of data. Even, decisions concerning the monitoring of fishing gear have been centralised and are taken by the Council itself. There are also detailed rules on the measures to be taken in the case of non-compliance. The Commission has been conferred powers to set
detailed implementation rules and to grant exemptions following a management committee procedure IIa. In some circumstances, this institution must approve national sampling plans of landings of catches. It also fixes the date on which the catches are deemed to have exhausted the quota and it operates deductions from the annual quota in the case of over-fishing, following the same committee procedure. Crucially, the Commission has been delegated powers to conduct, within limits, on-the-spot checks and inspections in co-operation with national authorities.

In the five years following 1992, the provisions of Regulation 2847/93 have been strengthened in three occasions. Regulation 2870/95 has reinforced the control of fishing effort requiring member states to take measures to ensure that masters of fishing vessels provide an ‘effort report’. Member states must record, following rather detailed rules, all fishing efforts deployed by vessels flying their flags. The Commission has to decide the provisions relating to the identification of static fishing gear and set the date on which the maximum fishing effort level of a member state is reached. Regulation 686/97 establishes a satellite-based vessel monitoring system with detailed rules on its application. The Commission has the right of accessing data originating from this system. Moreover, the regulation requires member states to establish and operate fisheries monitoring centres to monitor fishing activities and effort. The last amendment of Regulation 2846/98 reinforces controls on fishery products after landing, on transhipment operations and introduces specific monitoring programmes. New related acts have been adopted in the second half of the nineties. Regulation 847/96 includes rules to penalise over-fishing and Regulation 1447/99 establishes the types of behaviour that are considered to seriously infringe the CFP. The results of these measures are clear. The amount of by-catch and discards has decreased, from its highest level of 223 thousand tons in 1995, by an average of more than 9.5 percent in the four following years. The 1999 value is ‘only’ 28 percent higher than the 1988 level.

Summing up, the conservation objectives of the CFP, almost jeopardised by the Council’s own decisions of systematic increase of TAC and worsened by enlargements and national implementation problems, has led members of this institution to gradually pursue two strategies to enhance the credibility of policy commitments. The first one has been to constrain each other by adopting measures that increasingly restrain national executive action. The second one has been to rely to a greater extent on the Commission, an institution with a strong conservationist bias and which is less likely to acquiesce to ‘electoral’ pressures of domestic groups.

**Conclusion**

How far can we generalise these findings? The budgetary crisis that the Community faced in the mid-eighties was the result of systematic overpricing of agricultural produces. Some environmental and technical harmonisation directives have generated considerable uproar as, arguably, they grossly underestimated the costs they imposed on national administrations and industries. It could be argued that the Agriculture Council, the Environment one and other specialised council formations are sometimes composed of a majority of ministers with biased preferences. However, members of formations that cut across more policy jurisdictions and with more senior ministers, for instance the EcoFin and the General
Affairs Council, are probably less likely to be preference outliers. Similarly, the stark difference in policy preferences between the Council and the Commission that we have seen in the CFP is not necessarily replicated in other policy areas. Delegation to the Commission was seen as enhancing the credibility of the conservationist objectives as the difference between the Council and the Commission in this issue is glaring. If the two institutions share policy preferences, delegation is likely to be motivated by an informational rationale. Moreover, distributive policies imply a specific structure of preferences that are replicated in only a subset of public policies. Thus, decision-making within the Council may not produce such perverse effects. However, national (mis)application of Community laws tends to lead, in many instances, to further restrictions of national authorities and delegation to the Commission.

The implications for the upcoming enlargement are not very reassuring. An increase in the interests involved tends to expand the perverse patterns of decision making in distributive policies. As mentioned above, Baron (1991) shows that inefficient policies are more likely to be adopted by the larger legislatures. Nevertheless, this trend is likely to be counterbalanced by a greater executive role of the Commission and more restrictions on member states. This latter development is somewhat counterintuitive if enlargement is perceived as a dilution of the role of supranational institutions.

As far as the specifics of the CFP are concerned, there are some obvious implications. Had TAC decisions been taken jointly by the Fisheries and the Environment Councils, or unilaterally by the Commission, we would have not witnessed these policy developments. Equally, greater involvement of the European Parliament could have had a restraining effect. However, these institutional changes are unlikely. Apart from the legislative measures already adopted by the Council, we see one policy option as particularly promising. Ministers find it particularly hard to pursue conservation objectives because the yearly TAC setting process heightens the inter-temporal commitment problem that they traditionally face due to their electoral cycles. If anything, this aspect worsens the policy implications of their preference bias. Politicians that want to be re-elected prefer to delay to the next year any conservation measure that could burden seriously their constituencies. The use of a multi-annual approach, scarcely used but foreseen by Regulation 3760/92, which cuts across electoral cycles, could be a solution to the commitment problem. It could also increase much needed stability in the fishery market. Fortunately, the Commission has signalled the willingness to make greater use of this tool (Commission of the EC, 2001: 6).
Appendix

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

\[ U_{ic} = \frac{\beta^2}{2 + 2(n-1)\gamma} - \frac{\beta}{2 + 2(n-1)\gamma} \cdot \frac{\gamma(n-1)\beta^2}{2 + 2(n-1)\gamma^2} \]

For the proposer, the problem becomes

\[
\text{max } U_1(p_1, p_2) = \beta p_1 - p_1^2 - \gamma(n-1)p_2^2,
\]

subject to \[ \beta p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 \geq U_{ic} \]

The result can be derived using the following Lagrangian function

\[ L(p, \lambda) = \beta p_1 - p_1^2 - \gamma(n-1)p_2^2 - \lambda [\beta p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 - U_{ic}] \]

The solution to this system that maximises \( U_1 \) is \( p_i = \frac{\beta}{2 + 2(n-1)\gamma}, \forall i \). 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

\[ U_{ic}' = \frac{\beta'\beta}{2 + 2(n-1)\gamma} - \frac{\beta^2}{2 + 2(n-1)\gamma} - \frac{\gamma(n-1)\beta^2}{2 + 2(n-1)\gamma^2} \]

For the proposer, the problem becomes

\[
\text{max } U_1(p_1, p_2) = \beta' p_1 - p_1^2 - \gamma(n-1)p_2^2,
\]

subject to \[ \beta' p_2 - p_2^2 - \gamma p_1^2 - \gamma(n-2)p_2^2 \geq U_{ic}' \]

Since the value of \( U_{ic}' \) is now lower than if \( \beta \) were equal to \( \beta' \), there exists a vector \( U_1(p_1, \ldots, p_n) \) that is a Pareto improvement on the Commission’s proposal.
Bibliography


Notes

* We would like to thank Simon Hix for guiding us on some aspects of data collection, Sharyn O’Halloran, Gerald Schneider and the participants at the 2001 Conference on ‘Democratic Institutions for a Large European Union’, EUI, Florence for their insightful comments. Fabio Franchino would like to thank Eliana Colla for her enduring support during a rather testing time. Anne Rahming would like to thank Bernard Cummings for his constant encouragement and insight.

1 School of Public Policy, University College London
2 London School of Economics and Political Science
3 A similar emphasis is given by Bulmer and Wessels (1987) and, later, Westlake (1999).
5 Other contributions emphasise the importance of asymmetric lobbying activities (e.g. Olson, 1965), information asymmetries between voters and politicians (e.g. Coate and Morris, 1995) or credibility (e.g. Dixit and Londregan, 1995) in producing inefficient policies. All contain elements of truth, but we focus only on preferences and institutional features in this work.
6 Niou and Ordeshook (1985) finds that universal coalitions and inefficiency can be an equilibrium, but it is not unique and their work is not based on a model of a legislature.
7 More details on this 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 economic conditions, 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.
8 This term implies that the cross-country negative effect is the same across all other member states. This is obviously a simplification. One could envisage different weights $\gamma_{i,k}$ for the effect on member state $k$ of setting the measure for member state $i$. The term would become $2\Sigma_{k} \gamma_{i,k}$.
9 Laver and Shepsle (1996) assert that governments that form are likely to implement median policies on key issues dimensions. However, Budge and Keman (1990) see a tendency for parties to be rewarded with the ministers that are central to the policy area of their interest, implying a centrifugal tendency in portfolio allocation.
10 Its rules of procedure cover only the drawing up of the agenda, the final voting arrangements and the responsibilities of the committees that ‘lubricate’ its negotiating machinery. Council negotiations are however more structured if compared to other international organisations (Hayes-Renshaw and Wallace, 1997: 264-73).
11 The total utility is represented by the Commission’s utility function. It is possible to prove that, if we substitute into such function these values $p_i = \beta([2+2(n-1)]\gamma)$, for $\beta' > \beta > 0$, the total utility will always be lower than the utility derived from the efficient values $p_i = \beta([2+2(n-1)]\gamma)$. Two issues need comments. First, the Commission could anticipate Council’s bias and lower its proposal. This could happen. However, the Commission cherishes its reputation within the scientific community and, as we shall show, its proposals match those of independent experts. Strategic behaviour is less likely in these circumstances. Second, the default condition is the previous year’s TAC. This favours states less inclined to increase the TAC and postponement of decisions has occurred. Our model does not capture this repeated element. This is why we focus the empirical analysis only on TACs set in December.
12 With fewer member states or lower inter-country effect, delegation to the Commission occurs only if the member states and the Commission attach relatively similar values to beta, namely for a small preference divergence. This outcome replicates, though adding more conditions, a proposition in Franchino (2000).
13 Respectively, categories 501 and 703 in Budge, Klingemann et al. (2001).
14 In some cases, we considered the party affiliation of the secretary of state. Moreover, we have assumed that non-partisan ministers have the same preferences of the whole government.
15 The Kolmogorov-Smirnov Z statistic (two-tailed significance) is 0.82 (0.512) for the two samples on the environmental preferences, 0.67 (0.759) and 0.52 (0.948) for the fishermen (farmers) and right-left preference samples respectively. T-statistics of paired-samples test are -6.01 and -6.19 for the
government-minister pairs of fishermen support and right-left, respectively (significant at 1 percent). Note however than n (16) is relatively low.

16 The TACs are for the following species: cod, haddock, herring, hake, mackerel, plaice, saithe, sole and whiting. The comparison is made by regions. Comparing ACFM advice with EC-only TACs would be inappropriate because the former includes countries which are not member of the EC.

17 This data excludes the TACs for 1998 for which we do not have the proposed quantities. TACs have been reduced by the Council in only two percent of the cases. The net balance in tons is negative, that is reductions in quantities exceed increases, only in 1990.

18 Spawning stock biomass (SSB) estimates provide an indication of the size of the breeding stock available to replenish the resource, whereas fishing mortality (F), or the exploitation rate, measures the pressure put on a specific stock in any given year. The B\text{lim} is the spawning stock biomass estimated to lead to potential stock collapse, whereas the B\text{pa} is the precautionary level that affords a high probability of maintaining SSB above B\text{lim}. Similarly, F\text{lim} is the fishing mortality estimated to lead to potential stock collapse and the F\text{pa} is the precautionary level.

19 The data set comprises of 1086 TACs. It excludes: 1998 TACs, some North-west Atlantic, Antarctic and highly migratory species and quotas in non-EC waters because they are negotiated with third countries.

20 When data could not be deduced easily from the legislation, we used the reported landings from the previous year's data to count the number of states.

21 Art. 1 of Regulation 847/96 asserts that precautionary TACs apply to stocks for which no scientifically-based evaluation of fishing possibilities is available specifically for the year in which the TACs are to be set; analytical TACs apply otherwise.

22 In further research, a factor that could be taken into consideration is the market value of each species in relation to the total value of a country’s catch. Similarly, the preferences of the states that have interest in a specific zone and species could be considered instead of the interaction between the mean preference values and number of states.

23 A table, with an explanation for their inclusion in the data set, is available from the authors. There are no acts that could be considered a net decrease in control over the states or in Commission’s powers.

24 Over-fishing and illegal or black landings indicate similar behaviour. Though we do not have data on these activities, the Commission does consider them as an important causal variable in CFP conservation failure (Commission of the EC, 2001: 8).

25 Pre-1989 data on by-catch and discards are available only on haddock, whiting, saithe and mackerel.