

## A GENERAL MODEL OF RESOURCE ALLOCATION IN A DEMOCRACY\*

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### I. INTRODUCTION

In every society the allocation of economic and human resources must ultimately be determined by political decisions. This is most obviously so in a democracy. But due to the lack of formal theories of political behaviour, this question has so far been little studied.

This paper develops a general formalized model of government behaviour in a democratic society. Special emphasis is put on the various groups acting in such a system. In order to show the relevance of the approach, the model is used to analyze how resource allocation is handled when the competing demands are between the use for internal or external conflict resolution.

Both the total amount of resources used for conflict resolution as well as the distribution between internal (domestic) and external (foreign) uses is determined. These problems are of general relevance, as all countries with appreciable outside connections and interests must somehow solve this allocative decision. It does not only apply to (former) colonial countries. It is of great importance today for the United States which is faced with the problem of how to distribute available resources between external conflict resolution (in Vietnam) and internal conflict resolution at home (Civil Rights issues). Reference to actual problems are sometimes made, but only for suggestive purposes.

It may be added that the particular resource problem studied is related to the important problem of whether "imperialism pays." For example, did Britain or France in the past devote too much of their resources to external purposes, thus neglecting internal problems and conflicts? Would the economic growth rate have been higher without this preoccupation with foreign territories?<sup>1</sup>

### II. THE SUPPORT FUNCTION AND POLITICAL BEHAVIOR

The problems raised are tackled with the help of a strict model, as it is felt to be the only way possible to isolate the essential features and to find non-tautological results. The core of

the model is the support function which captures in very abstract and simplified form the relationship existing between the support the government receives and the factors which cause or induce this support. The support function is similar to the economists' production function, as it deals with the translation of "inputs" (here factors influencing political support) into "outputs" (political support). This relationship can be written formally as

$$S = S(F_1, F_2, \dots)$$

where S stands for support and F for the factors governing this support. It is an important feature of the political process that the government is able to influence these factors by its choice of policies, and hence has an effect on its political support.

The question immediately arises what these "inputs" are. The political process is so complex and interwoven that it seems impossible to enumerate all factors, let alone to define and measure them properly. The same is true for the economic process: the total production of an economy depends on a great many factors (such as the weather, individual effort and spirit, etc.). Nevertheless, economists have found it useful to concentrate on only two or three factors (today mostly capital, labor, and sometimes technology). By neglecting all the other influences, it was possible to reach important results. Only those factors are taken into account that are relevant for the specific analysis undertaken. Thus, when economic growth is studied, it is (almost always) perfectly feasible not to consider land and natural resources at all, as they stay constant over time. Similarly, it is possible to disregard inputs which are expected not to be influenced by the events in question. Another rule is not to include any stochastic factors which are outside the realm of decision makers, such as (at least up to now) the weather.

In the same way it is possible to reduce substantially the many factors which guide the support a political party receives. In the model here presented it is assumed that the support of the government (and of other parties) solely depends on

- (a) The way the government handles the external conflict;

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1. One of the few studies on this question indicates that at least Japan would have been better off by "considering its own business" (Boulding and Gleason 1965).

(b) The way the government handles the internal conflict;

(c) The consumption level the voters enjoy.

These are the main "issues" with which this paper is concerned; the many other factors that determine political support are disregarded here, as it can (without great error) be assumed that they are unrelated to the questions analyzed.

It is easier to specify the "output" side of the support function. In a democracy the fate of the government and other parties depends crucially on the number of votes received at election time. It is therefore quite straightforward to think of "support" as simply being "votes." The number of votes cast in election depends on

(a) The number of people in the society  $P$ . Various groups  $P_i$  ( $i = 1, 2, \dots, n$ ) will be differentiated.

(b) The eligibility ratio  $\epsilon_i$ . This gives the percentage of people who are legally entitled to vote. Even among democratic countries there is a wide range of restrictions depending on age, sex (Switzerland!), literacy, race, etc.

(c) The participation ratio  $r_i$ . In most countries only a small part of the population which is legally entitled to vote actually uses this privilege.<sup>2</sup> The total vote cast is hence

$$V = \sum V_i = \sum r_i \cdot \epsilon_i \cdot P_i \quad (i = 1, 2, \dots, n). \quad (1)$$

Each party receives only a certain percentage of this total vote, depending on the voting propensity  $\pi_i$ . This propensity is different for each group  $i$  and depends (in this model) on the above mentioned three "input" factors. The government party receives votes

$$V^G = \sum V_i^G = \sum \pi_i^G V_i. \quad (2a)$$

All other parties are taken together as "the" opposition; or it can alternatively be assumed that there exist only two major parties. The opposition receives votes

$$V^O = \sum V_i^O = \sum \pi_i^O V_i. \quad (2b)$$

Once the support function is specified, analysis must be made of what the government's objectives are. No generally accepted behavioral assumptions exist, but the following possibilities are all derived from the basic proposition that the government wants to stay in power:

(a) Vote maximization

This hypothesis and its implications are due to Anthony Down (1958); a very similar approach

has been taken by James Buchanan and Gordon Tullock (1962), and it has been supported in an empirical study by Otto A. Davis (in Margolis, 1965). Again, the analogue to economic theory is evident, where it is often assumed that firms seek to maximize profits. Instead of competition between enterprises, there is in a democracy competition between the parties.

(b) Maximization of vote majority

This hypothesis differs somewhat from straight vote maximization by the government. It could be imagined that some policy measures leave unchanged the number of votes the government receives but increase the votes the opposition receives. Such a policy would be considered undesirable by most governments.

(c) A "comfortable" majority

It may be that the government is most at ease when it receives not too great a majority, as otherwise there is the danger of losing control over the party's representatives in parliament. This hypothesis has the considerable disadvantage that it is not possible to specify exactly what size this "optimal" majority really is. A formal approach is hence difficult.

(d) Minimum winning majority

This behavioral assumption is rooted in game theory and has been introduced by William H. Riker (1962) into political theory.<sup>3</sup> It proceeds from the observations that once a coalition has gained a majority, additional members do not contribute anything, but on the contrary decrease the spoils of each member of the winning coalition. It is hence advantageous for each winning coalition to be as small as possible. This hypothesis is relevant here, as it may pay a government to favor just a bare majority of voters with substantial benefits, instead of dispersing them in small amounts over a large group of voters. It is, however, a very rare situation in a real democracy that a government knows for sure that it will receive a majority. It must therefore always strive to do as well as possible; otherwise it risks being beaten at election time.

Any of these behavioral assumptions of the government may be relevant in some circumstances; it is assumed here that the government seeks to maximize the vote majority.

### III. THE MODEL

The political support function has the following specific form in our analysis,

$$M \equiv V^G - V^O \quad (3)$$

2. For a useful survey of the factors influencing this ratio see Lester Milbrath (1965).

3. But the same approach has been used before to construct a power index (Shapley and Shubik 1964).

where M is the majority of votes which the government receives. Taking account of the voting propensities, this reads

$$M = \sum (\pi_i^G - \pi_i^O) V_i \quad (i = 1, 2, \dots, n). \quad (4)$$

Setting  $\beta_i \equiv (\pi_i^G - \pi_i^O)$ , this reduces to

$$M = \sum \beta_i V_i. \quad (5)$$

$\beta_i$  is the "voting bias" in favor of the government. This voting bias depends on the above mentioned three factors

$$\beta_i = \beta_i \{ p^E(R^E), p^I(R^I), c_i[C(R)] \} \quad (6)$$

$p^E$  is the probability of solving the external conflict (e.g., "winning" a war). This probability depends on the amount of resources devoted by the government to that end ( $R^E$ ). One is tempted to specify further

$$\frac{dp^E}{dR^E} > 0, \quad (7a)$$

as it seems evident that there is an increased chance of solving an external conflict the more resources are devoted to its solution. At least subjectively seen, this need not be true: it is possible that a conflict is increased when more resources are used for its solution:<sup>4</sup>

$$\frac{dp^E}{dR^E} < 0. \quad (7b)$$

The second term,  $p^I(R^I)$ , in Eq. (6) deals with the probability of solving the internal conflict ( $p^I$ ). This is dependent on the amount of resources ( $R^I$ ) used by the government for its solution, but there is again the possibility that different groups view this functional dependence differently. There are those who assume that the conflict has more chance of being solved the more resources are used by the government,

$$\frac{dp^I}{dR^I} > 0, \quad (8a)$$

but others maintain that the conflict gets only worse by government intervention<sup>5</sup>

$$\frac{dp^I}{dR^I} < 0. \quad (8b)$$

Eqs. (7) and (8) give a good example of how complex learning processes are and how little "facts

4. For example, many people contend that the U.S. escalation of the war by bombing North Vietnam actually decreases the chance of "winning" the war even in purely military terms, because this induces a more than proportional effort by the enemy. (For such one view, cf. New York Times editorial, 1967, p. 306.) The same reasoning was used in the case of the bombing of the civilian population in Germany during World War II (Galbraith, 1958, pp. 132-3).

5. In the case of the racial conflict in the U.S. there are many people who argue that the probability of race riots has increased since government programs have been undertaken to "solve" the underlying conflict.

speak for themselves." The conclusions (i.e., the learning) different people draw from the same facts can be completely opposed.

The third term in Eq. (6),  $c_i[C(R)]$ , states that voters are influenced in their decision by their economic well-being or, more exactly, by their per capita consumption level  $c_i$ . Given the size of the population, average consumption depends on total consumption C; i.e.,

$$c_i = c_i[C]. \quad (9)$$

At each moment of time the total amount of factors of production available is constant, such that if they are used for the production of one type of goods and services (e.g., for war purposes) they cannot be used to produce consumption goods. The more resources the government uses for the solution of both conflicts (R), the less consumption goods can be produced in a fully employed economy:

$$C = C(R) \quad (10)$$

$$\frac{dC}{dR} < 0; \quad \frac{d^2C}{dR^2} < 0. \quad (10a)$$

The sign of the second derivative ensures that the production possibility frontier is concave to the origin.

If the economy starts off with unemployed factors of production, it is possible to have at the same time more resources to solve conflicts and to enjoy a higher consumption standard (simply by giving work to the unemployed and putting unused machines into operation):

$$\frac{dC}{dR} > 0. \quad (10b)$$

It can now be considered in what way per capita consumption of some group ( $i, c_i$ ) depends on the overall consumption level of the economy C, as expressed in Eq. (9).

If the distribution of consumption between the groups remains unchanged, both items move in the same direction

$$\frac{dc_i}{dC} > 0. \quad (9a)$$

This need not be so under the circumstances considered: e.g., a decrease in C is (with full employment) a result of an increased use of resources for conflict resolution R [see Eq. (10a)]. It is very likely that some groups in the economy are directly

benefited by these expenditures  $R$ . In the case of funds to "solve" internal conflicts, the consumption level of the underprivileged is higher than it would otherwise be; and in the case of military expenditures to fight an external war, there are whole regions of a country as well as specialized industries which receive a direct economic benefit. For certain groups  $i$  it must hence be assumed that

$$\frac{dc_i}{dC(R)} < 0. \quad (9b)$$

Each of the three terms discussed in Eq. (6) may influence the voting bias positively or negatively. There are voters who switch to the government party if it is successful in "winning" an external war:

$$\frac{\partial \beta_i}{\partial p^E} > 0. \quad (6a)$$

There are other people who are only ready to support the government if it "loses" the external conflict, either because they consider a victory in this specific issue as detrimental to the overall position of their country ("Pyrrhic Victory"), or because they welcome any defeat of "their" country:

$$\frac{\partial \beta_i}{\partial p^E} < 0. \quad (6b)$$

The same reasoning applies to the second argument  $p^I$  in Eq. (6). Some groups want the internal conflict resolved, others feel better off when it persists:<sup>6</sup>

$$\frac{\partial \beta_i}{\partial p^I} > 0. \quad (6c)$$

$$\frac{\partial \beta_i}{\partial p^I} < 0. \quad (6d)$$

It can safely be assumed that groups which experience a higher consumption level are satisfied with the government and support it on this account:

$$\frac{\partial \beta_i}{\partial c_i} > 0. \quad (6e)$$

It cannot be completely ruled out (though it will be disregarded here) that those who have their consumption increased by the help of welfare pay-

ments of the government resent this dependence so much that they turn against the government. Thus

$$\frac{\partial \beta_i}{\partial c_i} < 0. \quad (6f)$$

#### IV. THE COMPLEX RELATION BETWEEN MOTIVES AND POLICY SUPPORT

The discussion of the determinants of the "voting bias"  $\beta$  has already indicated that it is not possible to deduce from the support of a certain policy anything about the underlying motives. This is stressed because it contradicts the "common man's" (and often the politician's and journalist's) "one-to-one" interpretation of politics and other social phenomena.<sup>7</sup>

This point is even more evident when the means to solve a conflict are jointly considered with the goals the voters want the government to achieve (Table 1).

Those voters who believe that an increased use of resources in the external conflict helps in winning the war (column 1) and who welcome such a victory (row 1) will increase their support of the government if it uses more resources for this purpose. But exactly the same is done by those voters who believe that the increased use of resources diminishes the chance of a victory (column 2) and who welcome such an outcome (row 2).

On the other hand, there are those people who reduce their support of the government (party) if it steps up expenditures for external conflict resolution, either because (i) these voters assume that the increased effort decreases the chance of winning (column 2) but they want a victory (row 1), or (ii) they believe that these expenditures are indeed effective to win the war (column 1), but they do not wish such a victory (row 2).

The same reasoning is true for internal conflicts (columns 3 and 4, rows 3 and 4). An identical government policy rallies groups with completely different views concerning the means to solve the conflict and the goals desired.

In the following analysis four groups of voters will be differentiated:

Group 1 whose members support the government's expenditure policy for both internal and external conflict resolution:  $(S^E/S^I)$ , where  $S$  stands for support.

Group 2 whose members do not want the

6. In the case of the "War against Poverty" in the U.S., there are groups at both extremes who want to see the existing conflict unresolved: e.g., the "Black Power" advocates, because the conflict resolution proposed by the government does not go far enough; the "White Power" advocates, because it goes too far.

7. This is related to the view of Kenneth E. Boulding (1967) that the "folk" images are still very much in force in the social system though in fact they become less and less appropriate in a modern society. In the natural system these "folk" images have been almost completely expelled because they obviously could not work in the space age. The learning process seems to be much more difficult in the social system because there the "folk" images seem to be quite appropriate and are not so easily refuted by experience.

Table 1

MEANS		EXTERNAL CONFLICT		INTERNAL CONFLICT	
		$\left(\frac{dp^E}{dR^E}\right) > 0$ (1)	$\left(\frac{dp^E}{dR^E}\right) < 0$ <sub>i</sub> (2)	$\left(\frac{dp^I}{dR^I}\right) > 0$ (3)	$\left(\frac{dp^I}{dR^I}\right) < 0$ <sub>i</sub> (4)
EXTERNAL CONFLICT	$\left(\frac{\partial\beta_i}{\partial p^E}\right) > 0$ (1)	$\frac{d\beta_i^E}{dR^E} > 0$	$\frac{d\beta_i}{dR^E} < 0$	-	-
	$\left(\frac{\partial\beta_i}{\partial p^E}\right) < 0$ (2)	$\frac{d\beta_i}{dR^E} < 0$	$\frac{d\beta_i}{dR^E} > 0$	-	-
INTERNAL CONFLICT	$\left(\frac{\partial\beta_i}{\partial p^I}\right) > 0$ (3)	-	-	$\frac{d\beta_i}{dR^I} > 0$	$\frac{d\beta_i}{dR^I} < 0$
	$\left(\frac{\partial\beta_i}{\partial p^I}\right) < 0$ (4)	-	-	$\frac{d\beta_i}{dR^I} < 0$	$\frac{d\beta_i}{dR^I} > 0$

government to increase expenditures for internal conflict resolution, but support more expenditures for the external policy: (S<sup>E</sup>/D<sup>I</sup>), where D stands for dissent.

Group 3 whose members support the use of more funds to fight the internal "war" and less for the external war: (D<sup>E</sup>/S<sup>I</sup>).

Group 4 whose members do not want the government to spend resources for any type of conflict resolution: (D<sup>E</sup>/D<sup>I</sup>).

V. THE TOTAL AMOUNT OF RESOURCES USED FOR CONFLICT RESOLUTION

As it is assumed that the government seeks to maximize its vote majority, it increases expenditures for the "solution" of conflicts as long as its vote majority rises, i.e., as long as dM/dR > 0, and stops when dM/dR = 0. Maximization of Eq. (5), including Eq. (6), gives

$$\frac{dM}{dR} = \sum V_i \left\{ \frac{d\beta_i}{dR^E} \hat{\rho} + \frac{d\beta_i}{dR^I} (1-\hat{\rho}) + \frac{d\beta_i}{dc_i} \frac{dc_i}{dC} \frac{dC}{dR} \right\} = 0, \quad (i = 1, 2, 3, 4) \quad (11)$$

where  $\rho \equiv R^E/R$ , i.e., the percentage of total resources used by the government to "win" the external war. It follows that  $(1-\rho) \equiv R^I/R$ . As the objective of this section of the paper is to determine the total amount of R, the internal distribution between R<sup>E</sup> and R<sup>I</sup> is taken to be constant, and at its optimal position  $\hat{\rho}$  (which is determined in the next section).

Expanding Eq. (11) and putting all positive

8.  $d\beta_2/dR^I < 0$ ;  $d\beta_4/dR^I < 0$ ;  $d\beta_3/dR^E < 0$ ;  $d\beta_4/dR^E < 0$ .

$d\beta_i/dR^j$ , (i = 1, ..., 4), (j = E, I), on the left hand side<sup>8</sup> yields

$$\begin{aligned} & \left[ \frac{d\beta_1}{dR^E} \hat{\rho} + \frac{d\beta_1}{dR^I} (1-\hat{\rho}) \right] V_1 + \left[ \frac{d\beta_2}{dR^E} \hat{\rho} \right] V_2 + \left[ \frac{d\beta_3}{dR^I} (1-\hat{\rho}) \right] V_3 \\ & + \left[ \frac{d\beta_1}{dc_1} \frac{dc_1}{dC} + \frac{d\beta_2}{dc_2} \frac{dc_2}{dC} + \frac{d\beta_3}{dc_3} \frac{dc_3}{dC} + \frac{d\beta_4}{dc_4} \frac{dc_4}{dC} \right] \cdot \frac{dC}{dR} \\ & = \left[ - \frac{d\beta_2}{dR^I} (1-\hat{\rho}) \right] V_2 + \left[ - \frac{d\beta_3}{dR^E} \hat{\rho} \right] V_3 \\ & + \left[ - \frac{d\beta_4}{dR^E} \hat{\rho} - \frac{d\beta_4}{dR^I} (1-\hat{\rho}) \right] V_4. \quad (12) \end{aligned}$$

Two main conclusions about the optimal level of expenditures for conflicting resolution  $\hat{R}$  can be drawn:

- (a) Political. The greater the support for the resolution of any conflict, the more resources will be spent. The more political influence and votes are gathered in Group 1 and the less in Group 4, the more resources will be invested to solve conflicts.
- (b) Economic. The more idle resources can be put to work, the more resources will be used for both conflicts. (It is assumed that  $d\beta_i/dc_i > 0$  and  $dc_i/dC > 0$  for all or almost all groups such that the expression  $\sum(d\beta_i/dc_i)(dc_i/dC)$  is positive.) It is clearly irrational for any government not to fully employ existing resources. This was understood, for example, by the Nazis in Germany who used the

vast number of unemployed to build up weapons to "solve" external conflicts.

Once resources are fully employed, this puts a very serious check on the commitment of more resources for internal and/or external war, because now costs arise in the form of a reduced consumption standard of the voters (through higher taxes and inflation). A democratic government that enjoys great political success in its conflict resolution policy started in a period of (more or less) unemployment almost certainly runs into political trouble when the economy reaches full capacity, even when the voters' attitudes concerning internal and external conflict are unchanged. (This fact is not always appreciated by politicians.)

## VI. THE DISTRIBUTION OF RESOURCES BETWEEN EXTERNAL AND INTERNAL CONFLICT RESOLUTION

The preceding section gives the general conditions under which the total amount of resources spent for conflict resolution is determined. This amount  $\hat{R}$  is now taken as given, and the distribution between the external and internal conflict is explored.

Eq. (5), including (6), is now differentiated with respect to  $p \equiv R^E/R$ , giving

$$\frac{dM}{dp} = \sum V_i \left\{ \frac{d\beta_i}{dR^E} - \frac{d\beta_i}{dR^I} \right\} = 0 \quad (i = 1, 2, 3, 4). \quad (13)$$

As can be seen, economic conditions do not (in this simple model) influence the distribution of resources for conflict resolution; it depends solely on the "size" of groups  $V_i$  and the political parameters  $d\beta_j/dR^j$  ( $j = E, I$ ). As long as the left hand side of Eq. (13) is greater than the right hand side, a greater share of resources is spent by a vote-majority maximizing government for the solution of external conflict (i.e., relatively less for the internal conflict).

To gain intuitive insight, Eq. (13) is expanded, and all positive expressions are collected:

$$\begin{aligned} & \left[ \frac{d\beta_1}{dR^E} \right] V_1 + \left[ \frac{d\beta_2}{dR^E} - \frac{d\beta_2}{dR^I} \right] V_2 - \left[ \frac{d\beta_4}{dR^I} \right] V_4 \\ & = \left[ \frac{d\beta_1}{dR^I} \right] V_1 - \left[ \frac{d\beta_3}{dR^E} - \frac{d\beta_3}{dR^I} \right] V_3 - \left[ \frac{d\beta_4}{dR^E} \right] V_4. \quad (14) \end{aligned}$$

Relation (14) is self-explanatory, but the following remarks may be added.

(a) In the short run, i.e., when the adequacy of the means as well as the goals of conflict resolution can be taken to be fairly constant for each group ( $d\beta_j/dR_j = \text{const.}$ ), it is the "size"  $V$  of

Groups 2 and 3 which mainly determines the distribution of resources. An increase, say, of the participation ratio of citizens supporting the external war but rejecting the governmental measures to solve the internal conflict, Group 2, increases (other things being equal) the share of resources used for external conflict resolution. An increase of the "size" of Groups 1 or 4 has not such a clear-cut impact, as it depends on the relative importance their members attach to each issue.

(b) For the government's allocative decision, it should be irrelevant whether a group supports a certain policy or whether the opposite policy is rejected. This may be of some importance, because in the political process the two feelings are probably not preferred with equal intensity: e.g., protest may be stronger than support, especially with large "latent" group.<sup>9</sup> The government might thus get a biased view, leading to a suboptimal allocation of resources from its point of view.

(c) If some politician or party attempts to influence the existing distribution of expenditures for conflict resolution, it could try to act on either the "size" (i.e., on  $r_i, \epsilon_i, A_i$ , or  $P_i$ ) of some appropriate group or on the political parameters ( $d\beta_j/dR^j$ ). The latter requires, however, a much more skilled organization or "political engineering" because—as seen above—there may be widely different views behind the same political parameter. There is the danger that a politician who tries to influence such a parameter alienates one of the subgroups behind it such that the final outcome may be self-defeating.<sup>10</sup>

It has been assumed that the variables and parameters in Eqs. (12) and (14) are independent of each other. In political reality this is not necessarily true. A rise in political importance of any group is likely to induce either supporting or countervailing reactions among other groups. This can happen by the actual shifting of voters from one group to another, or by an induced change in the participation ratio, eligibility ratio, or augmentation factor.

## VII. SUMMARY AND CONCLUSIONS

The starting point of this analysis is that in every society the allocation of resources is ultimately determined by political decisions. This is even so when the market system is used for the purpose of allocation, for it is a fundamental political decision whether one leaves the provision of a given service to the market, to hierarchical decisions, or to the ballot. One of the most important areas in which such a fundamental decision

9. For this term and an interesting theory of group behavior on the economic and social field see Mancur Olson (1965).

10. For a brilliant model exploring the possibilities of successfully rallying divergent views to the same policy see Albert O. Hirschman (1963, Digression).

has to be made is between the use of resources for external and domestic purposes. Though there are huge amounts of resources involved, only few serious studies have been devoted to explain how this choice is taken in a democracy. This is all the more to be regretted as these decisions are of immediate political relevance: it is at present witnessed by the great emotion and political turmoil created in the United States which is urgently confronted with the conflict of how much resources to spend on foreign conflict resolution (mainly in Vietnam) and/or at home (Civil Rights issues and the Urban Problem). Such decisions had to be taken in the past, and will doubtless arise also in the future.

The problem has received little study so far because it was not known how to explain the behavior of political decision-makers. This article deals with this shortcoming by using an explicit theory of how the government acts, its behavior being analyzed with the help of two concepts borrowed from economic theory. It is assumed that the government officials want to maximize votes (or, more exactly, the vote share). This corresponds to the usual assumption of profit maximization by entrepreneurs. Politicians are seen as "political entrepreneurs" who undertake those actions from which they expect to gain most votes. Government behavior thus depends on (constant or changing) preferences of the voters. The government is able to influence the share of votes it receives by choosing those strategies winning the approval of the electorate. The relationship between these actions and the resulting vote share is given by the support function which (like an economic production function) transforms "inputs" into "outputs." In the problem considered the arguments of the support function can be restricted to three: the way the government handles the external conflict, the way it handles the internal conflict, and the accompanying consumption standard of the voters.

Within the framework of the model developed it is shown in exact terms that it is unwarranted to deduce from the support of a certain policy (by an individual or a group) anything about the underlying motives. Though it is done by the majority of all professional or lay political observers, it is wrong, for example, to assume that somebody who advocates the increased use of resources for internal purposes welcomes the resolution of internal conflicts. He may, on the contrary (for

some reason), prefer to see the internal conflict mount; he believes that his preferences are promoted by increased resources, because he expects as a result an intensification of the conflict. It should be pointed out that such opposite interpretation of facts are by no means necessarily due to unequal information or intelligence; it is indeed a phenomenon often found in reality.

The model predicts what the total amount of resources spent for any type of conflict resolution will be. This amount will be the greater, the more individuals (weighted by the influence factor and the political participation rate) belong to groups supporting such action for whatever reasons. This suggests that coalitions may be formed to reach that goal whose members have completely different and often opposing goals. As it means that there are less resources available for domestic consumption, the political difficulties in using resources for that purpose are quickly increased once the economy's full employment ceiling has been reached. The government may thus face opposition toward such expenditures though the basic preferences of the voters are completely unchanged. This is one of the most important ways in which the state of the economy influences otherwise unrelated political decisions.

The model also predicts how a given amount of resources is split between internal and external use. This relates, e.g., to the question often raised as to why the United States spends such large amounts in foreign lands while there exist such obviously pressing domestic needs. It is shown that one of the key parameters is the "size" of the groups either advocating or rejecting external or internal conflict resolution. "Size" does not merely reflect the number of voters, but also their political participation and backing. The government's allocative decision should not be influenced by whether a certain policy is supported or whether the opposite proposal is rejected.

Some group or party that wants to influence any politically determined allocation decision can attempt to change either (a) the preferences of the voters, (b) the way the policies are conceived to affect these preferences, or finally (c) all those parameters making up the "size" of the groups with a given opinion as to (a) and (b). The model helps to show that the strategies must be quite different, depending on which element is aimed at. This fact seems to be little appreciated in either political theory or practical politics.

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