

Altruism, Foreign Aid and Humanitarian Military Intervention

by

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ABSTRACT

The stated objectives for countries in providing foreign aid have been for strategic, economic and for humanitarian motives. The end of the Cold War and the recent disintegration of territorial states has increased the prominence of the humanitarian objective. Therefore, the paper concentrates on the transfer of resources from wealthier and politically stable countries to poorer and politically unstable ones. The amount of foreign aid provided by governments and international relief agencies is determined by the altruistic desires of individuals. Within a median voter framework, it is found that foreign aid is increasing in the degree of altruism of the median voter, their income, the similarity the median voter has with the ethnicity or religion of the recipient group and in the number of civilian casualties resulting from armed conflicts in the recipient nation, and inversely related to the size of the recipient country and the extent that international relief is being pilfered. This latter result explains “foreign aid fatigue.”

An implication of this analysis is that donor nations may have an incentive to intervene militarily in civil conflicts which reduce the welfare of their altruistic citizens in order to establish order in the relief effort or stabilize or establish a government capable of controlling the domestic unrest. This option will be chosen if the welfare of the median voter is greater under military intervention than under the status quo of continuing to send only aid. Intervention will occur, the more effective the military option is in reducing the unrest, the greater the degree of altruism of the median voter, the larger the size of the donor country, the lower the cost of intervention, the larger the extent and size of the group being victimized, the lower the relative valuation placed on

alternative domestic uses of foreign aid and the greater the size of the transfer being provided.

INTRODUCTION

The end of World War II and with it the start of the Cold War marks the beginning of the use of foreign aid as an instrument to transfer resources between economies (see Ruttan, 1996 for an overview). In the US, the first government program was the Marshall Plan in 1948 to help restore war-torn Western Europe. The number of programs and their diversity, along with the number of nations participating in this global redistribution of resources has since then expanded dramatically.

The main objectives given for providing foreign aid, whether by public or private (NGO) organizations have been: 1) strategic, 2) economic and 3) humanitarian. The strategic objective for providing aid to foreign governments has been to enhance or maintain the national security of the donor country. For example, in the Cold War period the objective was to contain the expansion of the Soviet Union's influence. This required providing assistance to countries to prevent them from falling within the Soviet's sphere of influence. The economic objective of granting aid is couched in the rhetoric of promoting the exports and also the employment of the donor country. Finally, the humanitarian objective, unlike the previous two objectives is not dominated by donor-country concerns, but more by the needs of the recipient country. Examples include concern for economic development in the poorer countries of the world and by meeting the basic needs of many of these people.

It is difficult to examine the stated reasons given by donor countries for their foreign assistance and categorize the objective into one of these three. In fact, they are not necessarily mutually exclusive of each other. The economic and humanitarian objectives of foreign aid have been historically met by the use of military force to

complement the transfer of resources when the aid itself is not of military equipment and training. For example, in the case of the US this aid took the form of direct military involvement in Vietnam, and more recently in Kuwait. Similarly, economic aid may also serve strategic purposes.

Also the constituencies for these different objectives of aid vary. We may categorize the groups broadly into two types of constituencies. The first are the donor-oriented groups, e.g., groups who are solely interested or responsible for the political and strategic concerns and the economic costs and benefits of assistance to interest groups such as industry, shipping, agriculture and labor. The second are recipient-oriented groups whose main concern lies with the economic development, humanitarian and human rights needs of the recipient countries. Examples in this category are the different ethnic communities in the donor country and the human needs constituency such as OXFAM and other PVO (private volunteer organizations).

The end of the Cold War has seen foreign assistance for strategic purposes diminish. In addition, the disintegration of nations and the ensuing civil wars has led to a prominence in the humanitarian objective and with it the role of the US military and that of other countries has been pressed to change. Several recent military involvements are difficult to justify as being demanded by purely national security interest. For example, the stated objective of the US military mission in Somalia was to facilitate the transfer of foreign aid, mostly in food and medicine, being conducted through private as well as governmental agencies. This more efficient transfer was expected to reduce the starvation of the population. Political unrest in Haiti and the accompanying deterioration of economic conditions led to a mass exodus of people towards the US. This prompted

the use of the military by the US to restore order and stem the flow of refugees. In Bosnia, the military has already been deployed to deliver food and medicine and now is being deployed in a peacekeeping role to reduce the likelihood of further casualties to the population. Similar roles for the military may be seen in the future in such areas as the Sudan where a civil war pitting Christians and Muslims has resulted in famine, in Rwanda which experienced a civil war, or in other areas of the world experiencing civil unrest.

The standard arms race models motivating military buildup and their potential use were predicated on the existence of an adversary that threatened national security, a situation which existed during the Cold War (see e.g., Brito, 1972; Brito and Intriligator, 1977, 1985; Intriligator, 1975; Intriligator and Brito, 1984; Isard, 1988; McGuire, 1965; Seiglie, 1988). But what of the current use of the military for goals that do not seem to serve the national security interest of a country? This paper addresses this issue by presenting a positive theory of humanitarian military intervention, i.e., the use of force when national security is not at risk to complement the use of aid for humanitarian objectives. The results are based on a model grounded in the rationality of altruistic individuals. If individuals seeking to transfer resources to the population of a country on the brink of starvation or annihilation, either through private (NGOs) or public channels, find that their desires are not being achieved satisfactorily they may opt to support military intervention to improve the distribution of this aid if the outcome of this strategy increases their welfare. More specifically, a political equilibrium exists with humanitarian military intervention as the optimal strategy if the welfare of the median voter is greater when this strategy is employed than when a more inactive one is utilized.

This paper should also be viewed as providing a theoretical framework for much of the empirical work on the determinants of foreign aid to developing countries. These papers have posited possible political objectives of foreign aid and then tested these hypotheses. For example, studies have analyzed whether foreign aid is tied to the human rights record of the regime in power, amongst other factors (see for example, Abrams and Lewis, 1993; Ball and Ball, 1992; Maizels and Nissanke, 1984; McKinlay and Little, 1979; Palda, 1993). In addition, this paper fills a vacuum in the literature on humanitarian military intervention by presenting a formal model, in contrast to the existing literature where analysis of the topic tends to be normative in scope and empirical work relegated to case methods (see e.g., Gordenker and Weiss, 1990; Weiss and Minear, 1993). The next section of this paper develops the model more formally. In section III, an analysis of the political equilibrium properties of the theory is presented. In the final section the results are summarized and some conclusions drawn.

THE HUMANITARIAN AID MODEL

We assume two countries which we denote by 1 and 2. Country 2 is assumed to be in a state of anarchy or a state where the central government is unable to control its armed forces or paramilitary groups that are confiscating some fraction, τ , of the resources available to the representative household or individual in the country. We assume that individuals in Country 1, either through private groups (NGOs) or through their government (which represents the desire of the median voter) are transferring resources to Country 2 at the rate T per household in that country. If we denote the endowment of resources of the representative household in Country 2 by e_2 , then after

the armed groups confiscate their portion the family has $(1 - \tau)e_2 + T$ resources available for their consumption. Their preferences are represented by the following utility function:

$$U_2 = U_2(c_{2o}, U_2^*(c_{2c})) \quad (1)$$

where c_{2o} denotes *own* consumption, c_{2c} denotes the consumption of one's children or other family members, and U_2^* denotes the level of utility of one's children which is assumed to depend upon the consumption made available by parent's transfers.¹ We assume that

$$\frac{\partial U_2}{\partial c_{2o}} > 0 \quad \text{and} \quad \frac{\partial U_2}{\partial U_2^*} \frac{\partial U_2^*}{\partial c_{2c}} > 0,$$

i.e., that parent's welfare is increasing in own and children's consumption.

The consumption choices available to the household are bounded by the budget constraint²

$$c_{2o} + c_{2c} = (1 - \tau)e_2 + T \quad (2)$$

Maximization of equation (1) subject to (2) yields the optimum levels of *own* and children's consumption given the initial household endowment e_2 , the amount of foreign aid T , and the rate of confiscation τ . It is easy to show that consumption falls as the rate of confiscation rises. Very high rates would lead to famine and death. Within this framework we could define $\tau = 1$ as the actual starvation of the citizenry with

$$U_2 = U_2(0, U_2^*(0)) \neq 0. \quad (3)$$

We assume that Country 1 possesses the military power, M , necessary to reduce the rate of confiscation by armed groups in Country 2, i.e.,

$$\tau = \tau(M) \text{ with } \frac{\partial \tau}{\partial M} < 0. \quad (4)$$

This deployment is financed by a lump-sum tax on households in Country 1 at the rate m , where if there are N households $M=mN$.

Household's preferences in Country 1 are characterized by the following utility function:⁴

$$W_1^i = U_1^i(c_{1o}^i, c_{1c}^i) + \beta_i \hat{U}_2, \quad (5)$$

where c_{1o}^i, c_{1c}^i denote own and children's consumption of the i^{th} household in Country 1, and U_1^*, \hat{U}_2 denote the utility of one's children or other fellow citizens and the maximum attainable level of utility of a representative household in Country 2, respectively. Since, for simplicity, it is assumed that utility is separable, the degree of altruism towards the citizens of Country 2 is represented by β where we assume $0 \leq \beta_i \leq 1$. For example, if $\beta = 0$, then no altruism exists towards citizens of Country 2 since the second term in the utility function is zero. Conversely, if $\beta = 1$ then foreigner's well-being enters symmetrically as that of the part of total utility derived from spending on oneself. In general, this specification implies that as β increases, so does the degree of altruism towards those experiencing famine or civil unrest.

The choices available to this household are bounded by one of the following budget constraints:

$$c_{1o}^i + c_{1c}^i + T^i = e_1, \quad (6)$$

$$c_{1o}^i + c_{1c}^i + T^i = e_1 - m. \quad (7)$$

The constraint given by (6) is relevant when the country is not intervening militarily and therefore, given an endowment of e_1 it allocates this amongst *own*, children's, and foreigner's consumption. Alternatively, if the country intervenes militarily it costs the i^{th} household m in taxes to finance this intervention leaving $(e_1 - m)$ in disposable income to finance the alternative choices in spending and equation (7) is applicable. To restate, which budget constraint is operational depends upon whether Country 1 decides to intervene to reduce the rate of confiscation.

Denote the number of households in Country 2 which are being subjected to confiscation by K . If all foreign aid is provided through private organizations which receive charitable donations from households in Country 1, then the amount of the transfer received per household subjected to confiscation in Country 2 is:⁵

$$T = \frac{\sum_{i=1}^N T^i}{K}. \quad (8)$$

Conversely, if we assume aid is provided through the government then $T = T^d N / K$ where T^d is the amount of aid desired by the household containing the median voter.⁶

Suppose the country is initially adopting a strategy of non-intervention. Then maximization of equation (5) subject to (6) yields the optimum levels of *own* and children's consumption, as well as the amount of transfers household i desires to be made to Country 2. More formally, each household solves

$$\text{MAX}_{c_{1o}^i, c_{1c}^i, T^i, \lambda} L = U_1^i \mathbf{c}_{1o}^i, U_1^*(c_{1c}^i) \mathbf{h} \beta_i \hat{U}_2 + \lambda (e_1 - c_{1o}^i - c_{1c}^i - T^i), \quad (9)$$

yielding the following first-order conditions:

$$\frac{\partial U_1^i}{\partial c_{1o}^i} - \lambda = 0, \quad (10)$$

$$\frac{\partial U_1^i}{\partial c_{1c}^i} \frac{\partial U_1^*}{\partial c_{1c}^i} - \lambda = 0, \quad (11)$$

$$\beta_i \frac{\partial \hat{U}_2}{\partial T^i} - \lambda = 0. \quad (12)$$

Since,

$$\hat{U}_2 = \text{MAX}_{c_{2o}} U_2 \mathbf{e}_{2o}, U_2^* \mathbf{Q} - \tau)(e_2 + T) - c_{2o} \mathbf{h}, \quad (13)$$

by the envelope theorem and taking into consideration equation (8), equation (12) can be rewritten as

$$\beta_i \frac{\partial U_2}{\partial c_{2c}} \frac{\partial U_2^*}{\partial c_{2c}} \frac{(1-\tau)}{K} - \lambda = 0, \quad (12')$$

or equivalently by the first-order condition to (13),

$$\beta_i \frac{\partial U_2}{\partial c_{2o}} \frac{(1-\tau)}{K} - \lambda = 0. \quad (12'')$$

Note above that a transfer of a dollar to foreigners by an individual only increases the former's consumption by $(1-\tau)/K$ since a part of the transfer, τ , is confiscated and the remainder has to be spread amongst K households. The amount of the transfer that is actually realized increases the utility of the recipients at the rate $\partial U_2 / \partial c_{2o}$ and it yields

the domestic household only some fraction of that in utility, β , their rate of altruism towards foreigners.

From equations (10), (11) and (12'), we can see that the optimal allocation of resources in household i requires

$$\frac{\partial U_1^i}{\partial \alpha_{1o}^i} = \frac{\partial U_1^i}{\partial \alpha_1^*} \frac{\partial \alpha_1^*}{\partial \alpha_{1c}^i} = \beta_i \frac{\partial U_2}{\partial \alpha_{2o}} \frac{(1-\tau)}{K}, \quad (14)$$

i.e., they allocate their resources such that the marginal utility derived from consuming an additional unit is equal to the benefit they derive from increasing their children's or fellow citizen's consumption or from increasing the consumption of a citizen of Country 2.

By totally differentiating equations (6), (10), (11) and (12') we can establish the relationship between increases in the rate of confiscation τ , the size of the recipient population of the foreign country K , the degree of altruism towards foreigners β , and the amount of resources which domestic households wish to transfer to them, T . In matrix notation, the total differentiation of the first order conditions yields

$$\begin{pmatrix} \frac{\partial^2 U_1^i}{\partial \alpha_{1o}^i{}^2} & \frac{\partial^2 U_1^i}{\partial \alpha_{1o}^i \partial \alpha_1^*} & 0 & -1 \\ \frac{\partial^2 U_1^i}{\partial \alpha_1^* \partial \alpha_{1o}^i} & \frac{\partial^2 U_1^i}{\partial \alpha_1^*{}^2} + \frac{\partial \alpha_1^*}{\partial \alpha_{1c}^i} \frac{\partial^2 U_1^i}{\partial \alpha_1^* \partial \alpha_{1c}^i} & 0 & -1 \\ 0 & 0 & \beta_i \frac{\partial^2 U_2}{\partial \alpha_{2o} \partial \alpha_2^*} \frac{\partial \alpha_2^*}{\partial \alpha_{2c}^i} \frac{(1-\tau)^2}{K^2} & -1 \\ -1 & -1 & -1 & 0 \end{pmatrix} \begin{pmatrix} d\alpha_{1o}^i \\ d\alpha_1^* \\ d\alpha_{2o} \\ d\alpha_{2c}^i \end{pmatrix} = \begin{pmatrix} 0 \\ 0 \\ 0 \\ 0 \end{pmatrix}$$

$$= \begin{pmatrix} 0 \\ 0 \\ \frac{\partial U_2}{\partial \alpha_{2o}} \frac{(1-\tau)}{K^2} \\ 0 \end{pmatrix} dK + \begin{pmatrix} 0 \\ 0 \\ \frac{\partial U_2}{\partial \alpha_{2o}} \frac{1}{K} \\ 0 \end{pmatrix} d\tau + \begin{pmatrix} 0 \\ 0 \\ \frac{\partial U_2}{\partial \alpha_{2o}} \frac{(1-\tau)}{K} \\ 0 \end{pmatrix} d\beta_1. \quad (15)$$

Cramer's Rule yields the following solution:

$$\frac{d\Gamma^i}{d\tau} = \frac{\beta_i}{\Delta} \frac{\partial U_2}{\partial \alpha_{2o}} \frac{1}{K} \left[\frac{\partial^2 U_1^i}{\partial \alpha_{1o}^i \partial \alpha_1^*} \frac{\alpha_1^*}{\alpha_{1c}^i} - \frac{\partial^2 U_1^i}{\partial \alpha_{1o}^{i^2}} - \frac{\partial^2 U_1^i}{\alpha_1^{*2}} \frac{\alpha_1^i}{\alpha_{1c}^i} \right] \frac{\alpha_1^i}{\alpha_1^*} \frac{\partial^2 U_1^*}{\alpha_{1c}^{i^2}} \quad (16)$$

$$\frac{d\Gamma^i}{dK} = \frac{\beta_i}{\Delta} \frac{\partial U_2}{\partial \alpha_{2o}} \frac{(1-\tau)}{K^2} \left[\frac{\partial^2 U_1^i}{\alpha_{1o}^i \alpha_1^*} \frac{\alpha_1^*}{\alpha_{1c}^i} - \frac{\partial^2 U_1^i}{\alpha_{1o}^{i^2}} - \frac{\partial^2 U_1^i}{\alpha_1^{*2}} \frac{\alpha_1^i}{\alpha_{1c}^i} \right] \frac{\alpha_1^i}{\alpha_1^*} \frac{\partial^2 U_1^*}{\alpha_{1c}^{i^2}} \quad (17)$$

$$\frac{d\Gamma^i}{d\beta_1} = -\frac{1}{\Delta} \frac{\partial U_2}{\partial \alpha_{2o}} \frac{(1-\tau)}{K} \left[\frac{\partial^2 U_1^i}{\alpha_{1o}^i \alpha_1^*} \frac{\alpha_1^*}{\alpha_{1c}^i} - \frac{\partial^2 U_1^i}{\alpha_{1o}^{i^2}} - \frac{\partial^2 U_1^i}{\alpha_1^{*2}} \frac{\alpha_1^i}{\alpha_{1c}^i} \right] \frac{\alpha_1^i}{\alpha_1^*} \frac{\partial^2 U_1^*}{\alpha_{1c}^{i^2}} \quad (18)$$

$$\frac{d\alpha_{1o}^i}{d\tau} = \frac{\beta_i}{\Delta} \frac{\partial U_2}{\partial \alpha_{2o}} \frac{1}{K} \left[\frac{\partial^2 U_1^i}{\alpha_1^{*2}} \frac{\alpha_1^i}{\alpha_{1c}^i} + \frac{\alpha_1^i}{\alpha_1^*} \frac{\partial^2 U_1^*}{\alpha_{1c}^{i^2}} - \frac{\partial^2 U_1^i}{\alpha_{1o}^i \alpha_1^*} \frac{\alpha_1^*}{\alpha_{1c}^i} \right] \quad (19)$$

$$\frac{d\alpha_{1c}^i}{d\tau} = \frac{\beta_i}{\Delta} \frac{\partial U_2}{\partial \alpha_{2o}} \frac{1}{K} \left[\frac{\partial^2 U_1^i}{\alpha_{1o}^{i^2}} - \frac{\partial^2 U_1^i}{\alpha_1^* \alpha_{1o}^i} \frac{\alpha_1^*}{\alpha_{1c}^i} \right] \quad (20)$$

where Δ is the determinant of the matrix in equation (15) and is negative by the second order condition for a maximum.

We assume that diminishing marginal utility in *own*, children's, and foreigner's consumption exists within the relevant ranges and that *own* consumption and children's consumption are complementary or more specifically that

$$\frac{\partial^2 U_1^i}{\partial U_1^* \partial \alpha_{10}^i} > 0. \quad (21)$$

This last assumption states that individual's valuation of their own consumption is increased if their children or other members of their society are better off. These assumptions are sufficient, although not necessary, to establish the signs of equations (16)-(20) as follows:

$$\frac{dT^i}{d\tau} < 0, \quad (16')$$

$$\frac{dT^i}{dK} < 0, \quad (17')$$

$$\frac{dT^i}{d\beta_i} > 0, \quad (18')$$

$$\frac{dc_{10}^i}{d\tau} > 0, \quad (19')$$

$$\frac{dc_{1c}^i}{d\tau} > 0. \quad (20')$$

The interpretations of these signs are straightforward. The result given by equation (16') is that an increase in the rate of confiscation will reduce the amount of foreign aid that households in Country 1 desire to provide to Country 2. Since proportionally less of the foreign aid is received by the general population as the rate of loss increases, it becomes optimal to direct greater resources towards domestic uses. This “foreign aid fatigue” is contrary to the belief that greater humanitarian disasters will be met by greater international support. Large-scale genocides, famines and civil wars are more likely to elicit smaller foreign aid per capita. The interpretation of equation (17') complements this result, namely that countries experiencing domestic unrest with larger

populations requiring aid (K) will tend to receive less foreign assistance. Alternatively, if we interpret a decrease in K (a decline in the population) as resulting from an increase in the number of civilians killed, then aid increases when such occurs.

We also find the expected result given by (18') that the more altruistic an individual is (measured by β) the greater the amount of transfers they are willing to provide foreign countries. If the degree of altruism increases when the recipient is from the same ethnic group or religion, then we should expect that the foreign aid of a donor country is positively correlated to the degree of similarity it has with the ethnicity or religion of the recipient group. For example, the US provides large amounts of foreign aid to Israel and Greece since members of these ethnic groups are politically active in lobbying for aid. Since this aid serves to complement the strategic interests of the US as in the case of Israel, it leads to a greater amount being provided. Similarly, the largest recipient of foreign aid from France are its former colonies.

As for the effects of the rate of confiscation τ on *own* consumption (c_{1o}) and on the other domestic sources for altruistic transfers (c_{1c}), both are increasing in this rate as given by the signs of equations (19') and (20'). In other words, as the rate of confiscation in Country 2 increases, citizens of Country 1 increase spending on themselves, their families, and on domestic charities, and reduce their charitable assistance to foreigners (or their government does so since we assume it responds to the preferences of the median voter who desires that foreign assistance be reduced).

Similarly, the welfare of individuals in Country 1 is declining in τ . This is established by differentiating equation (9) with respect to τ , yielding

$$\begin{aligned} \frac{\partial W_1^i}{\partial \tau} = & \left[\frac{\partial U_1^i}{\partial \alpha_{10}} - \frac{\partial U_1^i}{\partial \alpha_1^*} \frac{\partial \alpha_1^*}{\partial \alpha_{1c}^i} \right] \frac{\partial \beta_{10}^i}{\partial \tau} + \beta_i \left[\frac{\partial U_2}{\partial \alpha_{20}} - \frac{\partial U_2}{\partial \alpha_2^*} \frac{\partial \alpha_2^*}{\partial \alpha_{2c}} \right] \frac{\partial \beta_{20}}{\partial \tau} \\ & + \left[\frac{\partial U_2}{\partial \alpha_{20}} \frac{\partial (1-\tau)}{\partial K} - \frac{\partial U_1^i}{\partial \alpha_1^*} \frac{\partial \alpha_1^*}{\partial \alpha_{1c}^i} \right] \frac{\partial \beta_{10}^i}{\partial \tau} - \frac{\partial U_2}{\partial \alpha_2^*} \frac{\partial \alpha_2^*}{\partial \alpha_{2c}} (e_2 + T). \end{aligned} \quad (22)$$

Since the first three bracketed terms are equal to zero by the first-order conditions, we get

$$\frac{\partial W_1^i}{\partial \tau} = - \frac{\partial U_2}{\partial \alpha_2^*} \frac{\partial \alpha_2^*}{\partial \alpha_{2c}} (e_2 + T) < 0. \quad (22')$$

THE MILITARY OPTION WITHIN A POLITICAL EQUILIBRIUM

We now explore when the government of Country 1 will find it optimal to intervene militarily instead of just providing foreign aid. We posit that this decision is governed within a political equilibrium framework by the desires of the median voter whose preferences are single-peaked. To simplify matters we have assumed that all individuals have similar endowments in the model but that their preferences vary. More specifically, different individuals are more altruistic than others as measured by the size of β . In the previous section, we formulated the model so that household transfers to foreign citizens could be interpreted as being realized solely through donations to international relief agencies. Since equation (18) establishes that T^i is monotonically increasing in β we can determine the total amount provided in foreign aid through private relief agencies. We know that

$$T^i = T^i(\beta, \tau, K, e). \quad (23)$$

If $F(\hat{\beta}_i)$ denotes the proportion of the population of Country 1 whose degree of altruism is less than $\hat{\beta}$, i.e., if $F(\cdot)$ is the cumulative distribution function of β in the citizenry, then the average amount of private foreign aid, \bar{T} , is:

$$\bar{T} = \int_0^1 T^i(\beta_i) dF(\beta_i). \quad (24)$$

We could equally interpret T^i as the amount that household i would like their government to tax them and distribute to the citizens of Country 2 in foreign aid. The amount that the government of Country 1 actually provides will be governed by the desires of the median voter. More specifically, the political equilibrium governing the average amount of foreign assistance is determined by $T^d = T^d(\beta_d, \tau, K, e)$ where β_d is the degree of altruism of the decisive or median voter. The decisive voter is determined by

$$\int_0^{\beta_d} dF(\beta_i) = \frac{1}{2}. \quad (25)$$

It is possible that intervening militarily in Country 2 could increase the welfare of altruistic individuals in Country 1. To examine this, let us assume two stages in the political process. In the first stage, the amount of aid Country 1 sends to Country 2 is determined by the desires of the median voter given some rate of confiscation, τ .⁷ In the second stage, the decision to intervene is determined by whether the welfare of the decisive voter can be improved by military intervention given that aid has already been precommitted.

We first assume that the extent of the military involvement, M , is proposed by the leaders of Country 1. The decision whether to proceed with this option is governed by whether the median voter prefers this option which reduces the confiscation rate to $\tau(M)$, to the status quo of continuing to send aid which is confiscated at the higher rate, τ .⁸ Noting that the cost per household of military involvement is $m=M/N$, then given T^d , the household containing the median voter supports intervention if:

$$\begin{aligned} W_{\text{intervention}}^* &= U_1^d(c_{1o}^d, U_1^*(c_{1c}^d)) + \beta_d \hat{U}_2[a_2 - \tau(M)a_2 + (e_1 - m - c_{1o}^d - c_{1c}^d)N/K] > \\ W_{\text{no-intervention}}^* &= U_1^d(c_{1o}^d, U_1^*(\bar{c}_{1c}^d)) + \beta_d \hat{U}_2[a_2 - \tau a_2 + (e_1 - \bar{c}_{1o}^d - \bar{c}_{1c}^d)N/K], \end{aligned} \quad (26)$$

where $\bar{c}_{1o}^d, \bar{c}_{1c}^d$ are the amounts consumed when intervention does not occur and c_{1o}^d, c_{1c}^d when it is supported.

The above condition implies that the median voter's support of military intervention is increasing with that individual's level of altruism. Similarly, the greater the cost to the median voter resulting from an intervention of size m , the less will it be supported. Finally, the more productive the military option is in reducing τ , i.e., the more negative is $d\tau/dM$, the greater will be the support for this option. Other similar implications follow regarding the size of Countries 1 and 2, as well as the rate of confiscation, τ .

We could permit the decision to intervene militarily and the amount of resources committed to the military involvement be governed by the desires of the median voter. In this case, the welfare achieved by intervening militarily is determined by maximizing

W_1^d , as given by equation (5), subject to the constraint given by equation (7) together with the condition that $m^d \geq 0$. The Lagrangian is

$$\text{MAX}_{c_{1o}^d, c_{1c}^d, T^d, m^d, \lambda} H = U_1^d(c_{1o}^d, U_1^*(c_{1c}^d)) - \beta_d \hat{U}_2 + \lambda (e_1 - m^d - c_{1o}^d - c_{1c}^d - T^d) . \quad (27)$$

We get the Kuhn-Tucker conditions given by equation (10)-(11) for the median voter (assuming an interior solution for consumption) along with

$$\beta_d \frac{\partial \hat{U}_2}{\partial m^d} - \lambda \leq 0, \quad (28)$$

or

$$-\beta_d \frac{\partial U_2}{\partial c_{2o}} (e_2 + T) \frac{d\tau}{dM} N - \lambda \leq 0, \quad (28')$$

and

$$M^d \frac{\partial U_2}{\partial c_{2o}} (e_2 + T) \frac{d\tau}{dM} N - \lambda \frac{M^d}{N} = 0, \quad (29)$$

since $M = m^d N$. Using equation (14), condition (28') can be restated as:

$$-\frac{\partial U_1^d}{\partial U_1^*} \frac{\partial U_1^*}{\partial c_{1c}^d} \frac{K}{(1-\tau)} (e_2 + T) \frac{d\tau}{dM} N - \lambda \leq 0. \quad (28'')$$

This system of equations determines whether the median voter prefers military involvement, $m^d > 0$, and if so, the amount of resources the median voter would like committed to military intervention taking into consideration that the rate of confiscation, τ , is reduced as resources are diverted towards military intervention. The actual transfer achievable after intervention is $(1 - \tau(m^d)) \frac{M^d}{N} = (1 - \tau(m^d)) \frac{m^d N}{N} = m^d$ where T^d is the aid precommitted to in the first stage. If (28'') holds with strict inequality, then $m^d = 0$ and intervention is not supported by the median voter. We can see from equation (28') and

(28") that this is more likely to be the case: a) the smaller the amount of transfers T being given to Country 2, b) the smaller the marginal valuation placed by the recipient of these resources $\partial U_2 / \partial x_{2o}$, c) the smaller the size of the donor country N , d) the less is the degree of altruism of the median voter β_d , e) the smaller the size of the group being victimized K , f) the smaller the rate of confiscation by bandits τ , and g) the less productive the intervention is in reducing τ , i.e., $d\tau/dM$. These conclusions are similar to those obtained above when we instead assumed that the leaders proposed the size of the military involvement.

Finally, another empirically testable implication from this model is that humanitarian interventions, as opposed to those motivated by other concerns, will be inversely sorted by the income or wealth of countries, i.e., richer countries, those with lower unemployment, income inequality or more generally lower domestic needs for resources will intervene in poorer, unstable countries without any obvious geopolitical advantage. Interventions dictated by national security or economic concerns will show no such correlation.

SUMMARY

The end of the Cold War has seen an increase in humanitarian foreign assistance and with it the deployment of military force by the international community to complement it. This paper concentrates on developing a model of humanitarian aid from wealthier politically stable countries to poorer and politically unstable ones to understand this process. The amount of foreign aid provided is determined by the altruistic desires of individuals using international relief agencies or their governments as vehicles, i.e., the

state as a unitary actor. In particular, when domestic upheaval dramatically reduces the standard of living of a nation it is provided with humanitarian aid. The amount which is given is determined by the preferences of the median voter. Within this framework, it is found that foreign aid is increasing in the degree of altruism and the level of income of the median voter, and in the number of civilian casualties resulting from the unrest, and is inversely related to the size of the recipient country (holding the level of aid per household constant) and the extent to which the international aid is being pilfered.

Donor nations may have an incentive to intervene militarily in civil conflicts which reduce the welfare of their citizens in order to establish order in the relief effort or stabilize or establish a government capable of controlling the domestic unrest. This option will be chosen if the welfare of the median voter is greater under military intervention than under the status quo of continuing to send only aid. The degree of intervention is greater the more effective is the military option in reducing the unrest, the greater is the degree of altruism of the decisive individual, the larger the size of the donor nation, the lower the cost of intervention, the larger the extent and size of the group being victimized, the lower the relative valuation placed on alternative domestic uses of foreign aid and the greater the size of the transfer.

ACKNOWLEDGEMENT

I thank Steven Brams, Michael Intriligator, Walter Isard, Marc Kilgour, Michael McGinnis, three anonymous referees and the participants at the World Peace Science Congress in Amsterdam, The Netherlands for the comments provided. The financial support of the American-Scandinavian Foundation, the Morris Beck Fund and the Rutgers Research Council is gratefully appreciated.

NOTES

¹ For the convenience of exposition, we will refer to the altruism existing within households as being directed towards children or other family members. But we could just as easily define it to be directed towards other citizens of one's country. This broader interpretation is useful for it introduces a trade-off confronting government: whether to direct resources collected through taxation on domestic income redistribution programs or spend these on foreign aid, i.e., on the redistribution of income across countries. Therefore, throughout the paper when reference is made to the altruism of households towards family members it can be interpreted as altruism towards fellow citizens.

² Throughout we assume that the price of consumption is unity.

³ The problem can be characterized in a different manner. Let $S_2(\tau)$ be the probability of surviving, which is assumed to be decreasing in τ . Then a household can be viewed as maximizing expected utility, $EU_2 = S_2(\tau)U_2(c_{2o}) + S_2^*U_2^*(c_{2c})$, where S_2^* is the probability of one's offspring surviving which also is a function of τ . This approach yields similar results to our simpler model at the expense of additional notation.

⁴ We could assume that individuals in Country 2 have similar preferences, i.e., they are altruistic towards foreigners but that their low level of income constrains them to choose zero transfers to Country 1. Over those levels of income which we are considering, the results are identical to those achieved by using the utility function individuals in Country 2 are assumed to possess.

⁵ Assuming for simplicity no administration or transactions cost.

⁶ If we assume $(J-K)$ of the population of Country 2 is participating in the confiscation then this group's per capita income is $\tau[e_2 + T(\tau)]K / (J - K)$. We note that the total amount of humanitarian aid, T , is a function of the rate of confiscation, τ , and we assume that this rate is chosen to maximize the per capita income of this group.

⁷ We could complicate the model by introducing strategic considerations. For example, a more generalized model of conflict has $\tau = \tau(M_1, M_2)$ where M_2 now denotes the resources expended by bandits in the confiscation of resources. The bandits payoff is now:

$$B_2 = \frac{\tau(M_1, M_2)[e_2 + T(\tau)]K - M_2}{J - K}. \quad (A1)$$

The version presented here should be viewed as the Stackelberg equilibrium of a game where the bandits first choose M_2 and therefore, τ , and the donors then choose T . In the second stage, the donors decide whether to intervene militarily or not. A more general theory of war which includes national security concerns is attained by allowing the military resources of country 2, M_2 , to adversely influence the level of endowments (or resources) of individuals in country 1 either by direct attacks or by threatening their economic interests (see Seiglie, 1998 for a more general model).

⁸ A more general interpretation of this rule is that a country should intervene when the expected utility from conflict is positive (see Bueno de Mesquita, 1981, 1985).

REFERENCES

- Abrams, Burton A. and Lewis, K. "Human Rights and the Distribution of US Foreign Aid." **Public Choice** 77 (1993): 815-821.
- Ball, George W. and Ball, Douglas. **The Passionate Attachment: America's Involvement with Israel, 1947 to the Present**. New York: Norton, 1992.
- Brito, D.L. "A Dynamic Model of an Armament Race." **International Economic Review** 13 (1972): 359-375.
- Brito, D.L. and Intriligator, M.D. "Conflict, War, and Redistribution." **American Political Science Review** 79 (1985): 943-957.
- , "Nuclear proliferation and the armaments race." **Journal of Peace Science** 2 (1977) : 213-218.
- Bueno De Mesquita, Bruce. "*The War Trap* revisited: A revised expected utility model." **American Political Science Review** 79 (1985): 156-173.
- , **The War Trap**. New Haven CT: Yale University Press, 1981.
- Gordenker, L. and Weiss, T. "Humanitarian Emergencies and Military Help: Some Conceptual Observations," in **Humanitarian Emergencies and Military Help in Africa**, edited by Thomas G. Weiss. London: International Peace Academy, 1990: 1-23.
- Intriligator, Michael, D. "Strategic Considerations in the Richardson Model of Arms Races." **Journal of Political Economy** 83 (1975): 339-353.
- Intriligator, M.D. and Brito, D.L.. "Can Arms Races Lead to the Outbreak of War?" **Journal of Conflict Resolution** 28 (1984): 63-84.
- Isard, W. **Arms Races, Arms Control, and Conflict Analysis**. New York: Cambridge

- University Press, 1988.
- Maizels, A. and Nissanke, M.K. "Motivations for Aid to Developing Countries." **World Development** 12(9) (1984): 879-900.
- McGuire, Martin C. **Secrecy and the Arms Race**. Cambridge: Harvard University Press, 1965.
- McKinley, R.D. and Little, R. "The US Aid Relationship: A Test of the Recipient Need and Donor Interest Models." **Political Studies** 27 (1979): 236-250.
- Palda, Filip. "Can Repressive Regimes be Moderated through Foreign Aid?" **Public Choice** 77 (1993): 535-550.
- Ruttan, Vernon W. **United States Development Assistance Policy: The Domestic Politics of Foreign Economic Aid**. Baltimore: The Johns Hopkins University Press, 1996.
- Seiglie, Carlos. "International Conflict and Military Expenditures: An Externality Approach." **Journal of Conflict Resolution**, March 1988: 141-161.
- , "Defence Spending in a Neo-Ricardian World." **Economica**, May 1998.
- Weiss, Thomas G. and Minear, L. **Humanitarianism Across Borders: Sustaining Civilians in Times of War**. Boulder: Lynne Rienner, 1993.
- Wittman, Donald. "How a war ends: a rational model approach." **Journal of Conflict Resolution** 23 (1979): 743-763.
- University Press 1992.