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Conditionality and Endogenous Policy Formation in a Political Setting

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Abstract

The paper examines two issues associated with aid and fiscal policy. First, how best the conditionality behind foreign aid, sometimes non-economic, is complied with in a principal-agent framework. In a multiple task and multiple principal framework, principals are better off cooperating and making the agent's efforts more complementary. Secondly, I examine endogenous policy formation in the context of domestic politics. This involves interaction between policy makers and domestic special interest groups. Outside donors need to be aware of these processes, so that they can ultimately influence it. I examine 3 endogenous policy processes: median voter, lobbying, and a combination of political contributions as well as altruism.

Keywords: aid conditionality, fiscal policy, political processes, endogenous policy formation

JEL classification: H60, O11, O12, O19

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1 Introduction

The rationale behind the granting of aid to developing countries is complex. Strategic, humanitarian, human rights and developmental goals enter into this matrix of motivation. Different donors (multilateral and bilateral) have diverse and even competing reasons for giving aid. Consequently the aid effectiveness literature is voluminous. It can range from the contribution of aid to growth (Burnside and Dollar 2000 is one example) to the rent seeking aspects of aid (Svensson 2000 for instance).

This paper analyses two other aspects of aid conditionality. First, how best the conditionality behind foreign aid, sometimes non-economic, is complied with in a principal-agent framework. The principal-agent framework is important when the donor wants a specific task to be undertaken as a *quid pro quo* of aid. Second, understanding the domestic political processes, involving interaction between policy makers and domestic special interest groups, that often underlies policy formation; so that outside donors are at least aware of the mechanics of policymaking, and can ultimately influence it. This analysis implies endogenous policy formation, which is important to donors wishing to influence and alter the recipient's policies. The rest of the paper is organized as follows: section 2 examines the first issue, section 3 deals with the second process and section 4 contains a summary.

2 Conditionality in non-economic objectives

There is a growing incidence of aid targeted at objectives that are strictly not economic, such as improved human rights, environmental protection and disarmament.¹ Although I speak of the non-economic objectives of aid, the analysis of this section is equally applicable to other examples: debt-relief for social protection as well as aid programmes geared to post-conflict societies or greater market orientation. The granting of monies for these purposes entails an effort by the recipient in carrying out this task, akin to the agent in a principal-agent model. In this section, the aid donor can be viewed as the principal and the recipient as the agent, in a principal-agent relationship.

Where the effort by the agent is unobservable or unverifiable, there is the standard problem of moral hazard. These difficulties can be further exacerbated when there are many principals or donors dealing with the same agent or government (the common agency problem). An additional problem can arise when the agent carries out multiple tasks. The essence of any principal-agent relationship is unverifiable effort exerted by the agent in carrying out the task for the principal. There is, however, a verifiable output. One cannot usually prove effort levels undertaken by those who act on our behalf, but the outcome or output is verifiable. The presence of a multiple-task agent, as demonstrated by Holmström and Milgrom (1991), in general yields low-powered incentives to perform any one task, when the various activities of the agent are substitutes as far as the principal's interests are concerned. It might even pay the

¹ Of course these may improve economic performance and raise the quality of life. Traditionally, however, lending was mainly related to the economic efficiency (returns) of projects. See Hopkins (2000) on political economy aspects of aid.

principal to forbid one or more activities that negatively impact on the principal's objectives. The Holmström and Milgrom (1991) model considers a situation where a single principal deals with an agent carrying out multiple functions.

Wilson (1989) characterizes a typical government bureaucracy as answering to many masters and stakeholders, as well as carrying out several functions simultaneously. There are many instances where several principals (aid donors) deal with an agent (government) carrying out several tasks. For example, one donor may be making payments for improvements in labour standards or a privatization programme, while another is more concerned with disarmament or the reduction of corruption. They could all be interacting with a single government who has, as a consequence, several jobs.

Following the set-up in Dixit (1999) we specify a multiple principal, multi-task framework. Let the two tasks to be done be denoted by x_1 and x_2 corresponding to commissions made by Principal 1 and 2 respectively. Each job entails symmetric costly and unpleasant effort levels, e . We abstract from uncertain variations in the agent's efforts (the influence of luck or simply better organized effort), and the fact that she/he might want to undertake some of the tasks for its own sake (Tirole 1994).

Principal 1 derives a benefit = B for task 1 but none from job 2, and the same in reverse applies to principal 2. Both principals will need to satisfy the participation constraint of the agent. The first principal's profit function takes the following form:

$$P_1 = Bx_1 - w[x_1 - ex^2_1 - ex^2_2 - 2kx_1x_2] \quad (1)$$

The terms inside the square brackets indicate the costs of exerting effort by the agent, which the principal must meet in order to satisfy the agent's participation constraint. Observe the jointness of effort, because the agent must simultaneously carry out both tasks x_1 and x_2 . The payment made to the agent is indicated by w , and the payment schedule is linear. The last term refers to how carrying out one task affects effort levels in the other. If k is positive then the two tasks are substitutes: more effort in one direction implies less effort elsewhere. If k is negative the two jobs are complements.

The second principal's profit function by symmetry is:

$$P_2 = Bx_2 - w[x_2 - ex^2_1 - ex^2_2 - 2kx_1x_2] \quad (2)$$

Maximization of (1) with respect to x_1 will lead to:

$$\frac{\partial P_1}{\partial x_1} = B - w - 2wx(e + k) = 0 \quad (3)$$

where, $x_1 = x_2 = x$ by symmetry. An identical expression can also be obtained for Principal 2. Rearrangement in terms of w yields the following payment schedule:

$$w = \frac{B}{1 + 2x(e + k)} \quad (4)$$

Note the following:

- (a) The outcome in (4) is in a situation when effort is unverifiable, but ‘output’ can be observed. Incentive payments to the agent decline (or are less high-powered) if the two tasks conducted by the agent are substitutes, as efforts in one direction detract from the other function. This is not the case if the jobs are complements.
- (b) Incentive payments related to effort and output to the agent increase, if the principals act together in a cooperative or collusive manner. Thus, incentives to the agent to exert optimal effort become stronger. This can be demonstrated by summing (1) and (2) and then jointly maximising for x . In the resultant expression for w in (4), the term 2 will vanish.

$$w = \frac{B}{1 + x(e + k)} \quad (5)$$

- (c) Equation (4) states that incentive payments to a multi-task agent decline as the number of principals, stakeholders or masters increases, as the magnitude of the term 2 in the denominator of (4) rises with the number of principals.

There are at least two clear policy implications here. One is that the donors should try to make the various efforts that they jointly require of a recipient government more ‘complementary’. In other words, they should go together. The second is that principals should cooperate more with one another. Murshed and Sen (1995) analyse a common-agency problem, in the context of adverse selection, when the donors or principals are also better off when they cooperate. An additional policy implication, but one that is not explicitly analysed above, is better design and quality of the recipient’s effort level (e).² These would require institutional capacity building in areas such as superior auditing, enforcement and legal frameworks.

3 Economic policies and political processes

Aid effectiveness has been said to depend on the presence of a ‘good’ policy framework (Burnside and Dollar 2000). Tax policies are a crucial element of overall economic policy. Donors, particularly bilateral institutions, are interested in a sound overall fiscal policy for two reasons. First, because the domestic tax base has to be eventually mobilized for the provision of public goods. Secondly, moving towards fiscal balance (tax revenues matching government expenditure) is an important part of achieving macroeconomic balance.

In this section I will present the manner in which economic policies could be formulated out of a variety of political processes. Specifically, I will be concerned with tax policies. The donor community will be interested in these so as to: (a) gauge potential aid effectiveness, and (b) so as to ultimately influence the political processes that underlie economic policymaking. The first model is to do with a median voter outcome, the

² That is by reducing the variance of fluctuating effort levels that are subject to some random shocks.

second is associated with competitive lobbying, and the third involves a mixed system, partially driven by altruism as well as political contributions. The analysis follows Helpman (1997), whose model is concerned with the formulation of trade policies.

3.1 Direct democracy and median voter outcomes

Here we have the example of a democracy where the median voter's preferences determine the policy outcome. The issue at stake is the imposition of a commodity tax that provides revenues to be spent on public good provision (modelled as a lump-sum transfer back to the public). But it also lowers the profit income or rents from a factor of production owned by individuals in the taxed sector. The former entails a benefit and the latter a cost. The typical individual's indirect utility function takes the form:

$$U_i(\tau_i, \gamma_i^j) = \tau_i M_i(\tau_i) + \gamma_i^j P_i(\tau_i) + S_i(\tau_i) \quad (6)$$

where U stands for utility and τ indicates the tax rate. M is the demand function for the good(s) that are taxed as a function of tax rates, and τM is the tax revenue that is redistributed back to the public in a lump-sum fashion. P indicates the profit or rent income from the ownership of factors in sector (i); weighted by γ , the individual (j 's) share in the ownership of that factor. This income declines as τ is imposed. S is the consumers surplus' as a function of the tax. The first term on the right-hand side of (6) represents revenues redistributed back to the public. The second term stands for factor income, which is adversely affected after the tax is imposed. The last term indicates the manner in which consumer's surplus is related to the tax. Differentiating (6) with respect to τ and setting it equal to zero for an optimum, we find:

$$\frac{\partial U_i}{\partial \tau_i} = \tau_i M_i' + M_i(\cdot) + \gamma_i^j P_i' + S_i' = 0$$

using the following in the interest of compact notation:

$$P_i' = X_i$$

$$M_i(\cdot) = -X_i - S_i'$$

we obtain:

$$\tau_i = \frac{(1 - \gamma_i^m) X_i}{M_i'} \quad (7)$$

The superscript m in γ above indicates the median voter's share in the assets adversely affected by the tax in sector i . The equilibrium tax is declining in the median voter's share of the asset that is taxed, as well as the negative effect of the tax on his sector specific factor income (X). Conversely a low median voter share in the taxed asset will produce a higher tax rate. Also, the smaller is the absolute price (tax) elasticity of demand for the taxed good (M'), the higher is the tax, akin to the Ramsey rule. The standard Ramsey rule is associated with $\gamma = 0$ and $X_i = 1$ in (7).

In democracies where the median voter determines tax policies, outside donors will need to be aware of these preferences. Taxes will have to be on those goods where median voter ownership (γ) is low, and where their income (X) is not greatly affected by the tax. In most developing countries that are democracies the median voter is relatively poor, and will not be against a tax being imposed as long as he shares in the benefits emanating from the tax. Moreover, the ownership of assets in sectors that are adversely affected by taxes tends to be highly concentrated, putting them outside the median-voter range. But as stated in Olsen (1965), these individuals may be better at organizing, and solving collective action problems such as free riding. They might even form influential lobbies, and it is to this that we now turn.

3.2 Lobbying and taxation

In this sub-section I model the non-cooperative Nash game between two groups lobbying the government for opposing outcomes. One group favours the tax, the other is opposed to it. Lobbying entails expenditures. I assume that each group has solved its intra-group collective action problem. Let us say that a fraction ' a ' of society is opposed to the tax, and another group, ' $1-a$ ' is in favour. Together they make up the whole of society, an unrealistic assumption that I shall adopt for the sake of algebraic tractability.

Take the example of the group opposed to the tax. Its welfare is given by:

$$W_i^a(\tau_i) = P_i(\tau_i) + a[\tau_i M_i(\tau_i) + S_i(\tau_i)] \quad (8)$$

where the terms inside the square brackets represent the group's share in revenues and consumers surplus. Differentiating the above with respect to tax rates and using the same assumptions as in the previous sub-section we obtain:

$$\frac{\partial W_i^a}{\partial \tau_i} = X_i(1-a) + a\tau_i M_i' \quad (9)$$

Equation (9) is the marginal benefit from the tax, which will be negative if X_i is large and negative.

The welfare of the other group favouring the tax and numbering $1-a$ is:

$$W_i^{1-a}(\tau_i) = (1-a)[\tau_i M_i(\tau_i) + S_i(\tau_i)] \quad (10)$$

Here there is no loss associated with the ownership of any taxed assets or factors.

$$\frac{\partial W_i^{1-a}}{\partial \tau_i} = (1-a)[-X_i + \tau_i M_i'] \quad (11)$$

The marginal benefit of the tax to this group is positive, for negative X_i .

Each group will maximize its welfare by incurring expenditures in lobbying (C) given the expenditure of the other group. The general tax formation function takes the form:

$$\tau_i = T_i(C_i^a, C_i^{1-a}) \quad (12)$$

The equilibrium tax rate arising out of the above political process is:

$$\tau_i = \frac{[(1-a_i)(b_i-1)]X_i}{[a_i b_i + (1-a_i)]M_i'} \quad (13)$$

where $b_i = -T_i^a/T_i^{1-a} > 0$. This is the ratio of the marginal rates of substitution between the lobbying expenditures of the two opposing groups. If $b_i > 1$ then the marginal expenditure by the anti-tax lobby is more effective.³ This could easily be the case if the anti-tax lobby is smaller and more effective.

The implications for donors is that aid might directly or indirectly affect the parameter b , so as to bring about the desired result from the donor perspective. This would only work in a multiple donor setting if all donor groups had similar objectives.

3.3 Altruism and influence

Here I consider a government or policymaker that combines social welfare and the influence of political contributions. Aggregate welfare (or welfare per-capita) enters into the government's policy function. So do contributions. To keep the analysis simple, there is only one group making political contributions, see Helpman (1997) for other permutations and complications. Let the government or policymaker's objective function (G) take the following form:

$$G = R + cW \quad (14)$$

where R indicates political contributions. W indicates national or per-capita welfare. The parameter c represents the trade-off, or the marginal rate of substitution, between national welfare and contributions. The higher is c the greater the weight placed by the government on national welfare. Thus c is a benevolence or altruism measure.

As far as the lobbying group is concerned its welfare (W_i) can be construed as:

$$W_i(\tau) = P_i(\tau_i) + a[\tau_i M_i(\tau_i) + S_i(\tau_i)] \quad (15)$$

again the parameter a , measures the size of the group. The lobby group will have to satisfy the participation constraint of the government. In other words, its contributions must at least match the government's utility without the policy advocated by the group, and contributions should be such that they induce a change. The lobby group will maximize $W_i(\tau) - R_i$. The equilibrium tax rate will be derived from the following function:

$$W_i(\tau) + cW(\tau) \quad (16)$$

³ If $b_i = 1$, then the two lobbies cancel out their respective influences.

This will lead to:

$$\tau_i = \frac{(1 - a_i)X_i}{(a_i - c)M_i'} \quad (17)$$

Note that the tax rate is a declining function of the concentration in the ownership of the specific factor adversely affected by the tax, and the associated negative output effect on factor owners. Also the higher is the level of altruism the greater is the tax (if the tax raises national welfare).

As far as foreign aid donors are concerned there is scope to influence the government's altruism parameter, c , via the aid leverage mechanism.

4 Summary

In the preceding two sections I have considered two alternative scenarios relevant to aid conditionality and fiscal policy. Two sets of broad policy recommendations emerge out of the analysis:

- (1) In a setting of a principal-agent relationship between donors and a recipient with multiple tasks, donors or principals are better off: (i) colluding with one another; (ii) designing the agent's various efforts so as to make them more complementary; and, (iii) and improving the quality of the agent's efforts via institutional capacity building.
- (2) In the context of endogenous domestic policy formation in recipient countries: (i) median voter preferences need to be taken into account in direct democracies; (ii) the policy effectiveness of lobbies have to be recognized and influenced; and, (iii) the government's 'welfarist' or altruistic motivations need to be worked on. In most societies the last two are more important, due to the fact that the few (rich and powerful) are far better at collectively organizing around their interests.

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