The Commercialization of NGOs: A Theoretical Analysis

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(Preliminary and incomplete, comments welcome)

Abstract

Commercial ventures are an increasingly important, yet often overlooked, source of NGO financing. This paper first presents a model of a two-product NGO that has both a development and a business wing. When business contributes to development such that it reduces its cost, this acts as an additional incentive for the NGO to invest in business. As a result, NGO commercialization may be either increasing or decreasing in donations. Furthermore, an NGOs' choice between a separate and integrated business wing crucially depends on the impact of business on development. Lastly, I investigate the case of commercial development projects, and show that when there is free entry of NGOs, their number may be either lower or higher than the optimum.

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1. Introduction

More and more non-governmental organizations (NGOs) in developing countries are moving toward investment in revenue-generating business ventures.[1] Not only do NGOs set up commercial activities in addition to development projects, but some development projects have a commercial basis. This paper is a theoretical analysis of the commercialization of NGOs. Throughout the paper, a key factor is the relationship between business and development, which is key to understanding the implications of NGO finance for their contribution to public goods.[2]

First, I model a two-product NGO that has both a development and a business wing. The existence of business activity affects the development wing's cost function. Two cases are considered. First, business may make development activities more costly. Indeed, this additional activity may require more paperwork to make sources of income and expenditure transparent. Moreover, NGOs sometimes have to engage in legal battles with the government and other critics to justify their involvement in commercial ventures. However, some business ventures may lower the cost of development, when they produce useful inputs that can be used by the development wing.

Section 2 underlines several motivations of NGOs to invest in business: the need to cover fixed costs, the lack of donations, and the potential benefits in terms of a reduction in the cost of development projects. Rather than providing a comprehensive analysis of NGOs' motives, the main point of section 2 is to show that NGOs' commercialization is not necessarily decreasing in donations. Existing literature argues that nonprofits' commercial activity responds positively to a fall in donations (Weisbrod, 1998) and to the uncertainty regarding future funding (Bennett et al., 2003). However, major NGOs in Bangladesh, such as

1 The Nonprofit Enterprise and Self-Sustainability Team, an international NGO, was created to promote the use of self-financing strategies for NGOs worldwide and helps its partners design their commercial projects. For more information, see their website: http://www.nesst.org.

2 The analysis was greatly motivated by my visits to NGOs in Bangladesh in spring 2004. Examples from Bangladeshi NGOs illustrate the model throughout, and the appendix provides more information on the NGO sector and NGOs' commercial revenues in the country.

BRAC, have a large and relatively secured donor funding base, as well as a high degree of commercialization. The need to cover large fixed costs and the beneficial spillovers of some business ventures on development programs help to explain this fact, beyond the pattern of donor funding.

Then, in section 3, I investigate whether an NGO should set up its business venture as an integrated or a separate entity. The former structure is that of section 2, when the NGO controls both development and business investments. The latter is when both wings operate independently, but the development wing gets a share of commercial earnings. I compare the levels of development and business activity under both organizational forms. In the case where business makes development less costly, an integrated structure achieves both more development activity and more commercial earnings. However, when the existence of business makes development more costly, the NGO may face a trade-off between commercial earnings and development, in its choice between the two organizational forms.

Of course, the model is highly stylized. In the real world, an NGO can have a separate commercial venture while keeping some control over its decisions. For example, Grameen's sister companies are separate entities, but their headquarters usually are in the main Grameen Bank building. In particular, this is the case of Grameen's companies involved in renewable energies (Grameen Shakti) and village mobile phones (Grameen Telecom), both of which generate important beneficial spillovers on Grameen's microcredit operations. On the other hand, Grameen's textile export business is more disconnected from the rest of Grameen Bank's activities, and its head office is located in the outskirts of Dhaka. Thus, the model presented here, rather than providing a precise description of organizational forms in practice, focuses on polar cases (joint versus independent decisions) and suggests the importance of keeping control over business activities when they can benefit development programs beyond the fund-raising motive.

Section 4 represents a second block of analysis. Specifically, the model is modified to study the case where the development project itself is a source of commercial earnings. The NGO only has one activity, which both contributes to the public good and makes profits. There are N potential NGO entrepreneurs and there is free entry in the NGO sector. Each one could instead engage in a financially more profitable activity. Then, for an entrepreneur to enter the NGO sector, the difference between monetary profits in the NGO and alternative sectors must be compensated by the utility gain from contributing an additional unit of public good. Entry generates a public good externality on other individuals, but also puts downward pressure on the price NGOs can charge for their product (a "business-stealing" effect). I show that depending on the relative size of these two effects, the equilibrium number of NGOs may be either lower or higher than that which maximizes social welfare. This result is related to Barla and Pestieau (2005), where the equilibrium of charities is usually lower than the optimum, unless the joy of giving effect is very high. In my analysis, the joy of giving effect is replaced by financial profits in the development project, which gives rise to a business-stealing effect of new NGO entries on existing NGOs. Lastly, I discuss informally how introducing consumers of the NGO sector more explicitly would affect the analysis of section 4, depending on who these consumers are.

The economic literature on nonprofits recognizes the existence of commercial income in these organizations. For example, Glaeser and Shleifer (1998) propose a model in which nonprofits derive their income both from donations and the sale of their services, and Weisbrod (1998) gathers papers covering a broad range of issues regarding nonprofits' commercialization. However, most of the literature on the subject has focused on the nonprofit sectors of developed countries, notably in the United States. By contrast, the present paper aims to shed light on the commercialization of local NGOs in developing countries, which has been overlooked by the economic literature.

The growing resemblance of some NGOs with business firms might cast doubt in the public on whether they remain truly committed to their social missions.[3] Economics papers on NGOs often emphasize altruism as a key characteristic of these organizations.[4] Thus, NGOs are considered reliable players in the development community not only because of their not-for-profit legal status, but also because they are committed to their missions. As a result, NGOs' commercial activities may face skepticism, and it is of particular importance to emphasize the relationship between commercialization of revenues and development projects.

The rest of the paper is organized as follows. Section 2 presents the model of a two-product NGO and questions the usual negative relationship between commercial activity and donations. Then, section 3 investigates the choice between business ventures as integrated or separate entities. In section 4, I turn to the case of a commercial development project, and compare the equilibrium and optimum numbers of NGOs in the sector. Section 5 concludes.

2. The NGO-business hybrid

Description of the model

Assume that an NGO is involved in two activities, a development project and a business venture. It invests d in development, and derives utility $v(d)$ from the development project, where $v(.)$ is an increasing and concave function. The business activity consists of producing a private good in quantity b, and the cost of this activity is $\psi(b)$, with $\psi(.)$ increasing and convex. This business yields certain net profits pb. In addition, the NGO receives an exogenous level of donations D. Moreover, the cost function of the NGO's development wing (the one that produces g) is given by $C(d,b)$, where $C_d(d,b)>0$, $C_{dd}(d,b)>0$ and $C_{bb}(d,b)>0$. This cost function assumes that the business activity

3 Brunel (2002) blames "the emergence of 'supply side economics' or the trend towards favoring profitable markets rather than responding to the real need of people in distress". She also points out that NGO workers themselves disagree with strategies that make their organizations look like businesses. Criticisms of NGOs' commercialization in developing countries can be found in Ahmad (2001) and Reddy (2003).

4 In Azam and Laffont (2003), NGOs are modelled as more altruistic type of rich agent. In addition, Besley and Gathak (2001) suggest that NGOs may care more about development projects than governments do. Furthermore, Hopkins and Scott (1999) argue that NGOs' potential advantage over other type of firms comes from their ability to attract altruistic workers.

impacts the cost function of the development wing. In other words, the business venture generates a cost externality on the development project. Throughout the rest of the paper, two cases will be discussed: the case where the business activity lowers the cost of the development program, with $C_b(d,b)<0$ and $C_{db}(d,b)<0$; and that where it makes development more costly, with $C_b(d,b)>0$ and $C_{db}(d,b)>0$.

The latter case is the most straightforward effect of business as an additional activity for the NGO. It may be thought of as reflecting the additional transaction costs associated with running the business venture or collecting the agreed upon share of profits going to the development wing. This tends to increase the costs of the development wing. The first case, however, arises when such cost increases are more than offset by cost reductions, due to some complementarity of the business activity with development programs. For instance, the business might produce useful inputs that can be used by the development wing.

The first case can be interpreted as one where a good externality exists and dominates the bad cost effect, so that the net effect of the business activity on C is negative.

The NGO derives utility from development and the money from its business and donations. Its utility function is then given by:

$$v(d)+pb+D-C(d,b)-\psi(b) \tag{1}$$

The next subsection investigates some motivations for the NGO to invest in business and their implications for the relationship between NGO commercialization and donor funding.

Motivations to invest in business

Assume that the NGO needs the business profits and donations to cover its fixed costs *F*. That is, the NGO chooses *d* and *b* to maximize its objective function (1), subject to the constraint that fixed costs are covered:

$$pb + D \geq F \tag{2}$$

The first order conditions with respect to *d* and *b* are then:

$$v'(d) = C_d(d, b) \tag{3}$$

$$p + \lambda = C_b(d, b) + \psi'(b) \tag{4}$$

where λ is the multiplier associated with constraint (2).[5] Note that (2) means the business production must be large enough for the profits to cover the difference between fixed costs and donations. If $D \geq F$, the constraint simply boils down to $b \geq 0$. But if $D < F$, the NGO must produce a positive amount *b*, greater than or equal to *F*-*D*.

The fixed cost *F* may be thought of as reflecting the necessity to maintain office facilities and to pay the staff. Here, *F* is treated as exogenous, but it is likely to result from previous choices made by the NGO, which, as it grows, can choose to remain relatively modest or switch to more modern office space. For example, the biggest Bangladeshi NGO, BRAC, owns an impressive nineteen-story building with air-conditioning everywhere. They also run (in the same building) a four-star hotel with conference facilities and a panoramic restaurant. By contrast, the Grameen Bank building only has air-conditioning in the conference room and in the managing directors' offices.

Furthermore, *F* could also be interpreted as including the NGO's next period's budget planned for development programs. Since donors are often reluctant to cover such things as office costs, or do not necessarily finance programs completely, the case $D < F$ arises often in practice, which makes it necessary for NGOs to generate their own funds.

In the case where $D < F$, the NGO produces either just enough to cover the shortfall,

5 Note that here, *d* could be zero but the analysis focuses on the interior solution for *d*. However, one may argue that it could happen in practice, if an organization started out as an NGO and later ended up being a pure business venture, abandoning development programs completely. This could be the case if an entrepreneur pretended to be driven by development goals to attract donor funding, and then used the funds for business. The present paper does not analyze this problem.

or more than just necessary. It produces $b > \frac{(F-D)}{p}$ if the following condition holds:

$$C_b(d, F-D) + \psi'(F-D) < p \tag{5}$$

Then, the chosen *d* and *b* are given by the interior solution, characterized by (3) and

$$p = C_b(d, b) + \psi'(b) \tag{6}$$

Otherwise, if (5) does not hold, the NGO produces just enough to supplement donations, in order to cover the fixed costs, that is, $b = \frac{(F-D)}{p}$. In this case, the investment in business is increasing in *F* and decreasing in *D*. This effect of *D* relates to some results in the literature on nonprofits' commercial revenues. For example, in the case of US non profits, Segal and Weisbrod (1998) find that exogenous decreases in donations lead to more commercial activity.

Furthermore, the case where inequality (5) holds needs to be examined more precisely. First, when $C_{db}(d, b) > 0$, (5) is more likely to hold when *D* is low. Then, as donations decrease, it becomes more likely that the NGO invest in more business than what is just necessary to cover fixed costs. In the case where $D \geq F$, this means that as donations fall, the NGO is more likely to have a business. This corresponds to the view that commercial activity by NGOs increases as a result of a fall in donor funds.

Now, let's examine the case where business activity reduces the cost of the development program, i.e when $C_b(d, b) < 0$ and $C_{db}(d, b) < 0$. Then, C_b represents an additional marginal benefit (rather than cost) of doing business for the NGO, and it becomes more beneficial as *b* increases. In this case, an increase in donations does not necessarily make it more likely for (5) to hold, that is, for the NGO to invest in more than the minimum (possibly zero) amount of business needed. The beneficial cost externality generated on development

activities acts as an additional incentive to invest in business. This effect corresponds to the approach advocated by the Grameen Bank. Grameen phone is a good example. One of the main motivations for Muhammad Yunus (the founder of Grameen Bank) and his colleagues to participate in creating this company was the project of making cell phones available to poor villagers, and in particular to Grameen borrowers. Similarly, Grameen Cybernet Ltd, which was created in 1996, is not only one of the main Internet providers in Bangladesh, but also part of Yunus' view of « the role of... information technology in reducing poverty ».[6] Grameen Communications, another member of the « Grameen family », was originally established to provide support services for Grameen Bank, such as developing software to facilitate the management of microcredit operations.[7]

So far, the model has discussed several potential motivations for an NGO to invest in a business venture: the need to cover fixed costs, the lack of donor funding, and the potential benefits in terms of a reduction in the cost of development operations. Moreover, fixed costs F can be thought of as including the NGO's next period budget to fulfill its objectives in terms of development projects. Then, the use of business profits to cover F corresponds to what is known in the literature as cross-subsidization. Rather than providing a comprehensive analysis of NGOs' motives, the main point of section 2 was to show that NGOs' commercialization is not necessarily decreasing in donations.

The next section investigates the trade-offs that an NGO may face when deciding whether to create a business as a separate entity or to keep it under the development wing full control. In other words, the analysis sheds light on whether business and development investment decisions should be taken jointly or independently.

6 http://www.grameen-info.org/bank/Commonlth.html, accessed on August 29, 2006.
7 http://www.grameen.com/gc/index.phtml, accessed on August 29, 2006.

3. Separate versus integrated entities

In the previous section, the NGO controlled both development and business investment decisions. This is often the case in practice, especially when NGOs engage in small scale income generating activities such as selling T shirts or a few handicraft products made by their beneficiaries. In addition, some NGOs use their staff members' expertise to sell various consulting services to governments and international organizations.

However, large NGOs also set up their business ventures as separate entities. Such a firm would then operate like other businesses, but share its profits with the NGO wing. This often takes the form of the NGO wing being a major shareholder of the business. For example, Grameen Phone is partly owned by the nonprofit Grameen Telecom, which operates the Grameen village phone program. Similarly, BRAC is a shareholder of BRAC Bank.

In this section, I first investigate the interaction between an NGO's development wing and its business venture, when they make their investment decisions independently. Then, I compare the results with those derived at the previous section, where the NGO controls its business venture's investment. As before, the business activity impacts the development wing's costs, either positively or negatively. Both cases are discussed to shed light on different real world examples.

Assume the NGO has two wings that make decisions independently: one is in charge of development programs d, and the other runs the business venture (invests in b). As in the previous section, the business activity affects the cost of development programs, and two cases will be discussed: 1) b increases the cost of development programs; 2) b reduces that cost.

Furthermore, since the development and business wings are separate entities, they share the profits from business. The development wing gets a share α of revenues pb while the business wing keeps the remaining fraction. I do not examine how this share is determined,

and it is treated as an exogenous parameter.[8] Then, following the notations introduced at section 2, the development wing chooses *d* to maximize the following objective function:

$$v(d)+\alpha pb+D-C(d,b) \tag{7}$$

Focusing on the interior solution, the investment in development programs *d* is such that

$$v'(d)=C_d(d,b) \tag{8}$$

In addition, the business wing maximizes the following:

$$(1-\alpha)pb-\psi(b) \tag{9}$$

The interior solution for *b* is then characterized by:

$$(1-\alpha)p=\psi'(b) \tag{10}$$

The business wing's investment is increasing in the profitability of the business, *p*, and in the share it keeps, α. For the NGO to cover the shortfall between donations and its costs *F*, it must keep a high enough share of business profits, and this is easier to achieve the more profitable the business (the higher *p*). In the rest of the paper, I ignore the budget constraint and focus on the comparison of NGOs' investments *d* and *b* under two possible organizational forms: integrated structure and separate entities.

Under the integrated structure, i.e. when the NGO controls both wings, as in the previous section, the business investment is given by b^I such that:

$$\psi'(b^I)=p-C_b(d,b) \tag{11}$$

However, when the NGO sets up its business venture as a separate wing, the business

8 Bargaining between the executives of both wings may have taken place, and various elements affect the determination of α, including the preferences of people involved and the consideration of agency problems.

investment b^S is given by (10), which can be rewritten:

$$\psi'(b^S) = p - \alpha p \tag{12}$$

The investment in development is characterized by:

$$v'(d) = C_d(d, b) \tag{13}$$

Case 1: $C_b(d, b) < 0$ and $C_{db}(d, b) < 0$.

First, assume the business activity reduces the cost of the development wing. This is the case when, as described in the previous section, $C_b(d, b) < 0$. Then, (11) implies $\psi'(b^I) > p$, so that we necessarily have $\psi'(b^I) > \psi'(b^S)$ and, since $\psi(.)$ is convex, $b^I > b^S$. In other words, when both wings are separate entities and make investment decisions independently, the business wing underinvests in business because it does not internalize the benefits of its activity on the development wing's cost function.

Furthermore, by total differentiation of equations (13) and after rearranging, we get:

$$d'(b) = \frac{(-C_{db})}{(C_{dd} - v''(d))} \tag{14}$$

Since in case 1, the denominator is positive and $C_{db}(d, b) < 0$, d is increasing in b. And together with $b^I > b^S$, this implies that $g^I > g^S$.

Then, according to these results, when business improves the cost efficiency of development activities, the NGO should adopt an integrated structure to keep full control over business investments. In particular, looking at (11) and (12), note that when $C_{db}(d, b) < 0$, there is no value of α between zero and one that would make the business investment with separate entities match its level under an integrated structure.

The analysis underlines the potential for fruitful business-NGO partnerships, even if this

is not explicitly treated in the model. For example, Grameen Phone was created thanks to a partnership between executives of the Grameen Bank and the Norwegian telephone company Telenor. The company's success has allowed a wide extension of its geographical coverage, which facilitates development programs such as Grameen's village phones as well as its microcredit activities.

Furthermore, the incentive of firms to collaborate with NGOs may come from the development of corporate social responsibility (CSR). Besley and Gathak (2006) « identify CSR explicitly with the creation of public goods and the curtailment of public bads jointly with the production of private goods ». In their model, equilibrium firms sell ethical and neutral goods to serve different kind of consumers who self-select depending on their valuation of public goods. Then, contributing to an NGO's business may be another way to display ethical behavior and attract caring consumers.

Case 2: $C_b(d,b)>0$ and $C_{db}(d,b)>0$.

Now, assume the business activity increases the cost of the development wing. This is the case where there is no complementarity between the business venture and development programs, so that the incentive of the NGO to invest in business is purely monetary.

Then, comparing (11) and (12), since $C_b(d,b)>0$, we can see that $b^I>b^S$ if $\alpha p>C_b(d^I,b^I)$. Therefore, if αp is large enough, the business wing as a separate entity underinvests compared to an integrated structure. Meanwhile, the NGO always collects more money from business under the integrated structure, since $b^I>\alpha b^S$. In addition, using (14), we have $g^I<g^S$. Thus, when $\alpha p>C_b(d^I,b^I)$, $C_b(d,b)>0$ and $C_{db}(d,b)>0$, in its choice between a separate or integrated business activity, the NGO faces a trade-off between commercial earnings and development programs.

Now, if αp is low so that $\alpha p<C_b(d^I,b^I)$, then $b^I<b^S$ and $g^I>g^S$. In addition,

if α is nevertheless high enough such that $b^I < \alpha b^S$, the NGO faces a trade-off: business operated as a separate entity allows it to raise more income but do less investment in development programs.

Finally, note that in case 2, there can be positive values of α such that $b^I = b^S$:

$$\alpha = \frac{[C_b(d^I, b^I)]}{p} \tag{15}$$

The business activity exerts a negative externality on the development wing , and α is just like a Pigouvian tax that makes the business wing internalize this effect. While α is treated as exogenous in the present paper, this suggests that profit sharing between an NGO and its separate business venture should take into account the interactions between their activities.

The above results are summarized in proposition 2.

Proposition 2

Case 1) Business reduces the cost of development programs:

An integrated structure, where the NGO controls both development and business investments achieves more commercial earnings as well as more provision of development programs.

Case 2) Business increases the cost of development programs:

In its choice between a separate or integrated business activity, the NGO may face a trade-off between commercial earnings and the provision of development programs.

4. Commercial development projects

This section shows how a simplified version of the model can be used to analyze the so-called social enterprises. In particular, I investigate the entry decision of NGO entrepreneurs when their production both contributes to the public good and generates private profits. Then,

I compare the equilibrium number of NGOs with that which maximizes social welfare. According to the organization Ashoka, ...(((the definition of social enterprise, social entrepreneurs based on Nessts and Ashoka))). For example, Muhammad Yunus, the founder of Grameen Bank and its 'sister' commercial enterprises, is such an entrepreneur.

The model presented previously was that of a two-product organization involved in both business and public good provision. However, many small social enterprises focus on one particular activity, that both constributes to the public good and makes profits. Now, to capture this idea in the model, consider the case where the commercial investment b is also the development project.

There are N potential NGO entrepreneurs. To focus on the number of entries in a simple way, assume that b is either one or zero. Let n be the number of NGOs entering, p(n) be the inverse demand function they face, (p'(n)<0), and $\psi > 0$ be the cost of production. In addition, the NGO derives utility from the total level of public good provided, given by v(n) (n NGOs enter and each produces one unit).[9]

Alternatively, the entrepreneur could stay out of the NGO sector and earn $\pi > 0$ in a more profitable business that does not contribute to the public good. I assume that $\pi > p(n) - \psi$ for all n, so that the alternative business is always more profitable than the commercial NGO project.

Equilibrium

Starting from an existing number n of NGOs in the economy, the entrepreneur chooses the NGO sector if:

$$v(n+1) + p(n+1) - \psi \geq v(n) + \pi \qquad (16)$$

which can be rewritten

9 Barla and Pestieau (2003) use a similar methodology. Bilodeau and Slivinski (1996) model the entry decisions of enterpreneurs in the nonprofit sector.

$$v(n+1)-v(n)\geq\pi-(p(n+1)-\psi) \tag{17}$$

that is, for an entrepreneur to start an NGO, the difference between monetary profits in the business and NGO sectors must be compensated by the utility gain from contributing an additional unit of public good.

In continuous form, (16) becomes $v'(n)\geq\pi-(p(n)-\psi)$.

Thus, with free entry in the NGO sector, the equilibrium number of NGOs, n_e, is such that

$$v'(n_e)=\pi-(p(n_e)-\psi) \tag{18}$$

Optimum

Now, let's look at the number of NGOs that maximizes social welfare. Recall that there are N potential NGO entrepreneurs, among which n enter the sector. The remaining (N-n) stay in the alternative and more profitable sector where they earn π .

Defining social welfaire as the sum of individual utilities, the central planner chooses n to maximize the following:

$$n(v(n)+p(n)-\psi)+(N-n)[\pi+v(n)] \tag{19}$$

The first order condition is then

$$Nv'(n_o)+n_o p'(n_o)=\pi-(p(n_o)-\psi) \tag{20}$$

At this point, it is worth noting what would happen if the NGO project did not have a commercial component. Then, starting from n existing NGOs, the utility from entering the sector would just be v(n+1), and an additional NGO is set up if $v(n+1)\geq\pi$. Then, the

equilibrium condition (17) simply boils down to $v(n_e)=\pi$. Furthermore, the central planner would maximize social welfare $Nv(n)+(N-n)\pi$, thus choosing an optimal n_o such that $Nv'(n_o)=\pi$. Therefore, $v'n_o=\frac{\pi}{N}<v'(n_e)$ and since v(.) is concave, the equilibrium number of NGOs is unambiguously lower than its social welfare maximising level. This is a standard free riding outcome of the private provision of public goods.

Now, back to the case of commercial NGO projects, let's compare (17) and (19). In equilibrium, an NGO entrepreneur's entry decision depends only on her own valuation of public goods and the profit differential between the NGO and the more profitable alternative. The optimal number of NGOs, however, also depends on aggregate utility from public goods, as well as on a « business-stealing » effect captured by the term $n_o p'(n_o)$. This corresponds to the total loss of revenue in the NGO sector due to the entry of an additional NGO. In the decentralized equilibrium, NGO enterpreneurs do not internalize this « business-stealing » effect. As a result, the equilibrium number of NGOs may be either lower or higher than the optimal level. Thus in this model, due to the profitable aspect of the NGO project, there can be overprovision of public goods in equilibrium.

Taxes and subsidies for a commercial NGO sector

One of the main policies towards nonprofit sectors in different countries is their tax-exemption treatment. However, with the growth of organizations' commercial revenues, the question of how to tax these earnings has become increasingly important. For example, in Bangladesh, some businesses complained that they face unfair competition from NGOs' businesses (Stiles, 2002). The case of a development project operated on a commercial basis is an interesting mix of business and development. On the one hand, policy makers may want to encourage public good provision by the NGO sector, through tax exemption and even subsidies. On the other hand, they may want to tax the associated commercial earnings, like

for any other business.

Let's now introduce a tax rate in the equilibrium of the model to see how it could be used to implement the optimal number of entrants in the NGO sector. Assume NGOs pay or receive t per unit sold (t may be positive or negative, depending on whether it is a tax or a subsidy). Then, starting with n existing NGOs, an additional entrepreneur enters the sector if

$$v(n+1)+(1-t)p(n+1)-\psi \geq v(n)+\pi \tag{21}$$

Then, the equilibrium condition with free entry becomes

$$v'(n_e)=\pi-(p(n_e)-\psi)+t[\pi-(p(n_e)-\psi)] \tag{22}$$

Now, note that the first order condition for the optimal number of NGOs can be rewritten as follows:

$$v'(n_o)=\pi-(p(n_o)-\psi)-n_o p'(n_o)-(N-1)v'(n_o) \tag{23}$$

Then, to implement the optimum, we must have

$$t=\frac{[-n_o p'(n_o)-(N-1)v'(n_o)]}{[p(n_e)-\psi]} \tag{24}$$

This makes clear that t should be a tax if the business stealing effect, of magnitude $-n_o p'(n_o)$, dominates, but should be negative if the public good externality, $(N-1)v'(n_o)$ is more important. In particular, note that if the second effect did not exist, reflecting a case where NGOs' businesses do not contribute to the public good, t should be a tax in this simplified framework.

Thus, the model suggests that these factors should be taken into account for designing policies towards NGOs with commercial activities. However, the above analysis ignores the welfare of consumers of the NGO sector's production. The next subsection discusses this

aspect informally.

Discussion

The model does not include consumers of the NGO sector's product, thereby ignoring a potentially beneficial effect of competition on social welfare. To understand how introducing consumers would affect the analysis, there are two cases to consider, depending on who the consumers are, and on the nature of the public good.

First, there is the case where consumers are rich people who buy the production of NGOs' poor beneficiaries. NGOs' contribution to the public good then consists of poverty alleviation by helping the poor produce and sell. NGOs' commercial earnings from the project come from profit sharing with their beneficiaries. For example, in Bangladesh, many NGOs provide rural handicraft producers with customers in Dhaka and even opportunities to export, thanks to the success of fair trade stores in rich countries.

In this case, the negative impact of new entrants on prices may be detrimental to social welfare, if this is associated with downward pressure on the poor producers' earnings. This was implicitly assumed in the model above, since according to (18), social welfare depends positively on the price.

However, the story is different when consumers are the poor beneficiaries themselves. This corresponds to the case where NGOs provide the poor with services on a commercial basis. For example, Grameen Shakti sells solar panels to poor Bangladeshi villagers so they can have access to electricity. The organization's goal is clearly to contribute to the public good by offering renewable energy solutions to problems in rural areas, but villagers have to pay for their solar panels. Of course, because promoting development is the primary motivation, this is done in an affordable way inspired by microcredit: people pay fifteen percent of the cost up front and then pay the rest in small installments. Other NGOs, including BRAC, have entered the market, and competition can drive prices down so that more villagers

can afford solar panels. In this case, what was referred to above as « business-stealing effect » may in fact be good for development.

5. Conclusion

This paper is a theoretical analysis of commercialized NGOs. I emphasized the importance of understanding the relationship between commercial and development activities. In sections 2 and 3, they were distinct activities undertaken by two wings of the NGO. In particular, I showed that when business generates spillovers that reduce the cost of development activities, this acts as an additional incentive for the NGO to invest in business and as a result, commercialization of the NGO is not necessarily decreasing in donations. Then, section 3 suggests that when such beneficial spillover effects exist, the NGO should keep control over business investments, rather than letting the business wing act independently. In this case, the integrated structure not only achieves a higher level of development investment, but also more commercial earnings. However, in the polar case where business increases the cost of doing development, the NGO faces a trade-off between commercial earnings and development, in its choice between a separate and integrated business wing.

Then, I turned to the case where commercial and development activity are confounded. The NGO has one activity, that both contributes to the public good and makes profits. Analyzing the choice of N entrepreneurs between the NGO sector and a financially more profitable alternative, section 4 shows that the equilibrium number of NGOs may be either lower or higher than that which maximizes social welfare. This depends on the relative size of two effects: entry generates a public good externality on other individuals, but also puts downward pressure on the price NGOs can charge for their product (a “business-stealing” effect).

Lastly, I discussed informally how introducing consumers of the NGO sector more

explicitly would affect the analysis. This aspect deserves particular attention in further research. When consumers are buyers of NGOs' services, their decision to purchase is also a contribution to the public good. If a villager buys a solar panel from Grameen Shakti, she may allow others to benefit from some light at night. Similarly, a villager turning to renewable energy for cooking contributes to a better local environment. Furthermore, there may be network externalities, and thus bandwagon effects, associated with NGOs' sales of new technologies. One woman deciding to invest in the mobile phone business under Grameen's village phone program will then provide a valuable service to the whole village. And the more people buy phones, the more interesting it becomes to have access to one. These aspects, among others, offer interesting avenues for future research on commercialized NGO projects.

References

Ahmad, Mokbul Morshed, 1999, Donors, the State, Non-Governmental Organizations and their clients in Bangladesh, working paper, Dhaka University

Ahmad, Mokbul Morshed, 2001, The State, Laws, and Non-Governmental Organizations in Bangladesh, International Journal of Not-For-Profit Law 3 (3).

Akm Ahsan Ullah, and Hasan Shareef Ahmed, 1998, Foreign Aid and NGOs in Bangladesh: A Way Towards Sustainability, Research and Evaluation Division, BRAC, Bangladesh.

Azam, Jean-Paul, 2003, A Theory of Poverty Aversion and Civil Society Development, Economics and Politics, 15 (1), 61-84.

Azam, Jean-Paul, and Laffont, Jean-Jacques, 2003, Contracting for Aid, Journal of Development Economics 70, 25-58.

Barla, Philippe, and Pestieau, Pierre, 2003, The Optimal Number of Charities, working paper, Université de Liège.

Bennett, John, Iossa, Elisabetta and Legrenzi, Gabriella, 2003, Commercial Activities as Insurance: the Investment Behavior of Non-Profit Firms, working paper.

Besley, Timothy, and Gathak, Maitreesh, 2001, Government Versus Private Ownership of Public Goods, Quaterly Journal of Economics 116 (4), 1343-72.

Besley, Timothy, and Gathak, Maitreesh, 2003, Competition and Incentives with Motivated Agents, working paper, London School of Economics.

Bilodeau, Marc, and Slavinski, Al, 1996, Volunteering Nonprofit Entrepreneurial Services, Journal of Economic Behavior and Organization, vol 31, 117-127.

BRAC, Annual Report, Dhaka, Bangladesh, 2002.

Brunel, Sylvie, 2002, My Recipe to Clean Up the Humanitarian Movement (www.humanitarian-review.org).

Glaeser, Edward L., and Shleifer, Andrei, 2001, Not-For-Profit Entrepreneurs, Journal of Public Economics 81 (1), 99-115.

Hopkins, R. and Scott, C.D., 1999, The Economics of Non-Governmental Organizations, The Development Economics Discussion Paper Series, The Suntory Center, London School of Economics.

Jack, William, 2001, Public Policy Towards Non-Governmental Organizations in Developing Countries, working paper, Department of Economics, Georgetown University.

Kairy, S.N., 2004, BRAC Performance and Self-Sustainability, BRAC, Bangladesh.

Phinney, Richard, 2002, A Model NGO?, Radio Netherlands, December.

Rose-Ackerman, Susan, 1998, Altruism, Nonprofits, and Economic Theory, Journal of Economic Literature 34, 701-728.

Reddy, Trusha, 2003, Non Government Organizations and Commercialization in a Post-Apartheid South Africa: A Comparative Case Study of the African Center for the Constructive Resolution of Disputes (ACCORD) and the Institute for Black Research

(IBR), unpublished Masters thesis, University of Durban-Westville, South Africa.

Steinberg and Weisbrod, 2005, Pricing and Rationing by Nonprofits with Distributional Objectives, Journal of Public Economics, forthcoming.

Stiles, Kendall, 2002, International Support for NGOs in Bangladesh: Some Unintended Consequences, World Development 30 (5), 835-846.

Weisbrod, Burton, 1998, To Profit or Not to Profit: The Commercial Transformation of the Nonprofit Sector (Cambridge University Press, Cambridge).

Appendix: NGOs in Bangladesh

Uncertainty for NGOs and donors

« Bangladesh is the land of NGOs », local NGO workers like to say. Indeed, the ADAB directory of NGOs listed more than a thousand in 2004 but the actual number working in the country is above 22,000 (Ahmad, 1999). Many villages host the four major organizations, BRAC, Proshika, Grameen Bank and ASA, as well as other small organizations.

Most NGOs are dependent on donor funding for their operations. With such a high number of NGOs in the country, competition for donors' assistance is fierce and uncertainty about future aid is a concern for all NGOs. In 1990, the government set up the NGO Affairs Bureau to regulate the NGO sector, including foreign organizations (Ahmad, 1999). Any NGO working with foreign funds has to submit the project to the NGO Bureau and receive its approval for the funds to be disbursed. Once a donor and an NGO have agreed upon assistance for a project, the latter goes to the NGO bureau with a letter of recommendation from the former, and starts filling out all the necessary documents. The delays for approval range from a couple of weeks to more than six months, and sometimes the disbursement of funds is not even allowed. The example of PRIP, an important consultant NGO based in Dhaka, shows how donors may have to withdraw their funds, not because they want to, but

simply because the NGO bureau turns down the NGO's request. PRIP provides services to other NGOs including management system development, research reports and information technology services. Until 2002, the organization was 100 percent donor-funded. A new project, « Towards a just society », was supposed to start in January 2002, with the financial assistance of the Swiss Development Cooperation, the Netherlands Embassy and DANIDA (Denmark). The agreed upon budget was about $US 4 million. However, because of the government's suspicion that PRIP was undertaking political activities, namely, supporting the opposition, the NGO was denied the disbursement of all the funds. Donors gave up since they were not able to channel the money. Although services to local NGOs were provided free of charge until 2002, since then, the organization survives by charging fees for its work. In 2004, a new project funded by the European Union was submitted to the NGO Affairs Bureau. This project called « Small initiative by local innovative NGOs » was endowed with more than 2 million Euros and is supposed to help 100 local NGOs. However, PRIP is still waiting for the NGO Bureau approval. Moreover, PRIP is not the only example of an NGO whose donor funds were blocked by the NGO Bureau. One of the four major NGOs, Proshika, was suspected of political activities and was under investigation in spring 2004.

Small and medium NGOs

One of the most obvious ways to recover part of the cost of a program is to charge the beneficiaries for the services provided, a device known as user fees. This form of cost recovery has been widely debated in the development literature. The advantages of user fees in development programs are twofold. First, as mentioned above, they generate revenue, and second, they regulate consumer demand and help to avoid congestion. However, charging poor beneficiaries may crowd out those who cannot afford to pay.

Steinberg and Weisbrod (2005) show that nonprofits make some consumers pay less than the marginal cost, while charging other consumers above marginal cost, and preventing

some people from consuming the good at any price. They argue that nonprofits have « concerns about reaching certain target populations » which make them use different pricing rules than those taking place in for-profit firms. In Bangladesh, NGOs often charge fees for the services they provide, but most of the time their distributional concerns keep these fees very low and the revenues generated usually remain small. For example, the Voluntary Association for Rural Development, a 7 year-old organization involved in programs including agriculture, education and health, has a service charge for all of its programs allowing it to cover around 15 percent of the costs, while it remains donor dependent for the rest. Organizations that focus on health care often use the kind of need-based price discrimination formalized by Steinberg and Weisbrod (2005). The Bangladesh Women's Health coalition charges user fees that include a registration card to become a beneficiary, the sale of medicines and a payment for the service provided to each patient. The organization recovers 50 percent of the costs of programs based in urban areas, serving both poor people in slums and middle class Bangladeshis. However, in rural areas, cost recovery only amounts to 15 percent. There, the opportunities for charging a higher price to some relatively richer people are less available. Therefore, an interesting avenue for self-sustainability is to increase cost recovery in urban areas, by serving a richer class of patients who can afford higher fees, in the hope that rural beneficiaries as well as slum inhabitants may eventually be cross-subsidized. However, caution is required since increased efforts to serve a richer population may divert the organization from its social mission.

Furthermore, some NGOs use their specific expertise to generate income. Such activities are more difficult to put in Weisbrod (1998)'s classification. Indeed, depending on one's point of view, they can be seen as preferred private goods or non-preferred private goods. At the same time, they are related to the organization's mission. Such income generating activities include mission-related services to for-profit clients, the production of

surveys, research reports, and the design of various materials for other organizations. The environmental NGO Prodipan offers a good example of such initiatives. Its core mission included raising awareness of poor villagers on forest management issues. It encourages forest preservation and attempts to provide appropriate livelihood options. In addition, it runs a safe water and sanitation program in urban slums. Prodipan has two kinds of profitable activities. First, it has a waste management program. Customers pay for their solid waste to be collected at their door. The materials collected are then used to make composed fertilizers which are sold. Second, the NGO works as a consultant on waste management issues for various national and international organizations. These two commercial activities are part of the NGO's environmental protection core mission and the profits are saved in a reserve fund that can be used to cover program costs when donor funding is momentarily interrupted. In April 2004, this reserve fund was worth US$ 0.5 million, while the NGO's annual budget was US$ 1 million.

A giant local NGO: BRAC

BRAC started in 1972 as a small relief organization to help refugees after Bangladesh's war of independence from Pakistan. Its founder, Fazle Hasan Abed, is a former company executive for Shell Oil. It has now become one of the largest NGOs in the world, with over 100,000 people on the payroll and the BRAC center in Dhaka looks more like the headquarters of an oil company than an NGO (Phinney, 2002). The organization has three core programs: the Economic Development Program, the Education Program, and the Health, Nutrition and Population Program. It is present in more than 60,000 villages all around Bangladesh (BRAC, 2002).

BRAC is a very advanced example of the kind of NGO that has motivated this paper. The organization has adopted various activities to generate profit and as a consequence, its financial sustainability has dramatically increased over the last fifteen years. In 2003, BRAC

generated 80% of its US$ 193 million budget.

BRAC has three kinds of profit-generating activities. First, the Microfinance Program is self-reliant and generates surplus. In 2003, the net income was about 10 million US dollars (Kairy, 2004).[10] Second, BRAC has "program support enterprises" (BRAC, 2002). By providing microcredit, BRAC encourages self-employment and people engage in a number of small enterprises. The aim of program support enterprises is to provide these small businesses with good quality inputs (seeds, etc.) and market opportunities. Third, BRAC has set up various commercial ventures, some of which can be considered as development programs. This is the case of Aarong sales centers, which were created in 1978 to help rural handicraft producers to sell their products. Other commercial investments are private companies involved in different sectors. These include a BRAC internet service called BD Mail, a BRAC Bank, and two real estate companies, Delta BRAC Housing Finance Corporation, and BRAC Concord Lands Ltd. There is even a BRAC University (BRAC, 2002).

As a consequence of these numerous investments both in development projects and in business ventures, it is difficult for anybody visiting Bangladesh to pretend he or she has never heard of BRAC. Indeed, like famous commercial brands, the NGO can be seen everywhere in Dhaka, at the branches of BRAC Bank, on the signboards of Concord Lands Ltd, and on people's business cards when their e-mail addresses are hosted at "bd-mail.net". It even finds its way in the average grocery bag in the form of such products as Aarong mango juice or milk (products of the dairy and food project).

If donors keep providing huge amounts of aid to BRAC even as it generates more and more profit by itself, part of the money is likely to implicitly subsidize the creation of new businesses rather than development programs for the poor. To ensure the efficiency of aid to such a rich NGO, it would be interesting to estimate what BRAC could achieve in

10 In Bangladesh, most NGOs are involved in microfinance. Stiles (2002) reports that "it has come to be seen as a means of empowering the organization" rather than the borrowers. And the higher the interest rate charged, the larger the profits.

development programs without aid. It depends on the extent of moral hazard problems inside BRAC for the use of profits from its business ventures.

However, giving money to BRAC does not mean supporting BRAC only. In addition to implementing its own programs, BRAC channels funds to smaller NGOs, especially in its famous Non Formal Primary Education Program. Therefore, for international donors, BRAC is not only an NGO that can implement a wide range of programs, it is also a kind of local donor agency that can channel money to a network of small local NGOs.

According to Kairy (2004), BRAC's head of finance and accounts, donor funding will be necessary in the future for the education program, because it would be difficult to keep it free for the beneficiaries otherwise and service charge would drive children from "bottom poor" families out of the schools.