THE RECENT IMPACT OF GOVERNMENT TRANSFERS ON POVERTY IN

HONDURAS AND ALTERNATIVES TO ENHANCE THEIR EFFECTS

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ABSTRACT

This paper characterises income poverty in Honduras during the first half of 2007, and assesses the impact that some government transfers have had on it. The characterisation of income poverty shows that it is possible to eradicate poverty in Honduras solely through redistribution, despite its being a low-income country. The analysis of the incidence and impact of government transfers reveals that they do reach the poor, but that they are not very effective in reducing the poverty headcount ratio or in alleviating poverty by reducing its intensity and severity. Nonetheless, the counterfactual simulations presented here show that improvements in targeting and increases in the amount transferred could significantly enhance the impact of government transfers on poverty in Honduras.

1 INTRODUCTION

In recent years the Honduran government has been spending 7–9 per cent of GDP on the programmes that comprise its poverty reduction strategy.[1] Some of these programmes involve direct cash and/or in-kind transfers to the poor, and thus it is assumed that their impact on poverty can be assessed. This paper's main goal is to characterise income poverty in Honduras in the first half of 2007, and to assess how it is affected by some of these transfers. A secondary goal is to simulate alternative scenarios in order to examine whether changes such as improvements in targeting and/or increases in the amount transferred could bring about greater poverty reduction and alleviation.

We will not consider the features of each transfer programme here, nor the challenges they face. Some of the transfers are currently in jeopardy. This is the case, for instance, of transfers that are conditional on low electricity consumption and are channelled through the national electricity company. The latter is facing financial problems because of the rising price of oil, since a significant part of the country's electricity supply comes from thermoelectric plants.[2]

Honduras's conditional cash transfer (CCT) programme, probably the first one implemented in Latin America in the early 1990s, has faced many sustainability problems

throughout its history, as evidenced by Moore's comprehensive description of it (Moore, 2008). It is also important to bear in mind that the programme was expanded and redesigned in mid 2007, and thus its current effects on poverty might differ from those presented herein. As this paper was being completed, the results of the second round of the Honduran national household survey were released. Since the survey is conducted in September, however, and since the reference period for non-labour income is three months before the survey, it is unlikely that it will detect all the effects of the programme's expansion on poverty. Hence an assessment of the poverty impact of that expansion must await the findings of the survey round in the first half of 2008. Otherwise there is a risk of underestimating the effectiveness of the changes to the programme.

This paper does not examine the institutional problems that the programme faced in 2007 or the changes it underwent. It focuses on the amounts transferred and their impact on poverty in the first half of that year.

To that end the paper is divided into five sections, including this introduction. The next section briefly describes the national household survey from which all the data in the paper are drawn, and explains in detail how the survey collects information on household income.

The third section explains the methodology used to measure the impact that some of the cash and in-kind transfers had on poverty, and to conduct the alternative- scenario simulations designed to explore whether the impact could be greater than observed. Essentially, the method consists of calculating poverty measures for income distribution net of transfers, and comparing them with those for the distribution including transfers. The alternative scenarios are counterfactual simulations in which the transfers are better targeted or are larger.

The fourth section presents the results, starting with a description of poverty and the observed impact of government transfers on it, and then moving to the alternative scenario simulations. Our description of poverty leads us to conclude that, in an optimistic scenario, poverty in Honduras can be eradicated through redistribution. Regarding government transfers, the main conclusions are that they do reach the poor but (since they are small and rather uniformly distributed among the poor) they do little to alleviate poverty, although they enable some of the least poor to cross the poverty line. The simulations show that even if the amount transferred does not increase, poverty alleviation would be greater if the transfers were targeted at the extremely poor.

The final section summarises the findings and presents some policy options to enhance the impact of government transfers on poverty.

2 DATA

The data in this study come from the May 2007 round of the *Encuesta Permanente de Hogares de Propósitos Múltiples* (EPHPM), a national household survey conducted twice a year. This two-stage sample survey is conducted by the National Statistical Institute (*Instituto Nacional de Estadística*, INE). Its sample comprised 21,606 households, which can be considered fairly large given the size of the population. The publicly distributed datasets include the variables that record the answers to the questionnaires, as well as those constructed by INE to calculate some of the poverty indicators disseminated by the Honduran government and used as part of the Poverty Reduction Strategy Information System (*Sistema de Información de la Estrategia para la Reducción de la Pobreza*, SIERP).

In the EPHPM, income is an individual attribute divided into two components: labour and non-labour. Labour income consists of the earnings of a person who worked in the production of goods and services for the market or for self-consumption. The earnings may be monetary or in-kind, in which case a monetary value is given to the goods or services received or consumed. Non-labour income consists of pensions, private transfers, capital earnings and government transfers. Some income components can be recorded in US dollars. The dataset contains the exchange rate used to convert values in dollars to lempiras: US\$ 1 = L\$ 19.03. Herein this exchange rate has been used to calculate all figures presented in US dollars.

It is worth mentioning that the income data in the May 2007 EPHPM is of very high quality, which was not the case in previous rounds of the survey. Only 344 observations had to be removed from the dataset. These were in households whose income could not be computed: 34 because of missing values; three because the in-kind income from agricultural activity of a worker in the household exceeded L\$ 8 million (more than US\$ 420,000); and the rest because of identification problems that arose when the non-labour income dataset was merged with the population dataset. The sample size was thus reduced to 99,432 observations of individuals in 21,555 households, a loss of only 51 households.

2.1 LABOUR INCOME

A working person was defined as someone who had been producing goods or services for the market or for self-consumption for at least one hour "last week" (INE, 2007). If a person worked for pay or as unremunerated worker, or was temporarily away from a job because of leave or sickness, a series of questions sought to characterise the job, such as by occupation and industry. The labour section of the questionnaire applied only to household members who were five or more years old.

The wage workers were asked how frequently they were paid (daily, weekly, twice a month or monthly), how many periods they worked "last month" and how much they were paid per period. They were also asked whether they received cash or in-kind payments besides a wage (such as food, clothing/footwear, housing, transport, commissions, bonuses, tips, extra hours or some other payment). If they did, they were asked to estimate the monthly value of the goods or services received.

If employers or self-employed workers were not agricultural producers, they were asked to state their average monthly earnings in the "last six months". If they had consumed their own products or services, they were asked to estimate the average monthly monetary value of such consumption in the "last six months".

If employers or self-employed workers were agricultural producers, they were asked questions about their production in the "last 12 months".[3] There was a set of questions about sales of livestock and their by-products, and another set about sales of crops. The questions on crops included an estimate of production costs, but there was no such estimate for livestock and by-products. Both sets included questions on personal consumption. The crop farmers' earnings could be negative, since production costs could be higher than the sale price of the crop plus self-consumption. This was not computed: producers with negative income were marked as having zero income in the constructed income variables.

All workers were asked whether they had a second occupation. If so, income from it was examined in the same way as that from the main occupation. The questionnaire had no questions about additional occupations.

An interesting feature of the EPHPM is that for those who did not work "last week" but did work before, the characteristics of the last occupation were surveyed. These included the monetary earnings of wage workers (if they had any) "last month", and of employers and the self-employed in the "last six months" (again, they were asked to estimate a monthly average). For this set of "workers who were not working", in-kind earnings were not surveyed, and no distinction was made between agricultural and non-agricultural producers.

2.2 NON-LABOUR INCOME

The reference period for non-labour income in the May 2007 EPHPM was the "last three months" (total earnings, not monthly average). All non-labour income components are described below, following the order in which they appeared on the questionnaire. The definitions are from the EPHPM interviewer's manual (INE, 2007).

The first category of non-labour income was pensions. Pensions were divided into two types: retirement pensions (*jubilación*) and those received because of accidents, injuries, physical or mental impairments, or sickness (*pensión*). No distinction was made between private and state-provided pensions.

The second category was that of private transfers from the following sources: monetary and in-kind remittances from people living abroad (*remesas*); monetary and in-kind transfers from relatives living in other households in Honduras (*ayudas familiares*); monetary and in-kind transfers from non-relatives (*ayudas particulares*); and alimony (*pensión por divorcio*).

The third category was that of capital earnings from two sources: rents (*alquileres*) and interest *(intereses bancarios)*.

Income from pensions, private transfers and capital earnings could be recorded in lempiras or US dollars, except for alimony, which could only be in lempiras.

The fourth category of non-labour income consisted mainly of government transfers. The first component was that of discounts for senior citizens (*descuentos por la tercera edad*). These are discounts that people aged 60 or more are entitled to in transport, public services and healthcare costs (it is not clear whether the government actually pays for these discounts).

Two components were related to electricity consumption: a subsidy to households consuming less than 300 kWh/month (*Subsidio de la ENEE*); and *Bono 80*, a variable cash transfer of up to L$ 100 from the national electricity company (ENEE) to households with a low level of energy consumption.

The remaining transfers were disaggregated into five components: (i) cash transfers to the elderly, single mothers and students through the *Programa de Asignación Familiar* (PRAF); (ii) school lunch for children in public schools (in-kind, *merienda escolar*); (iii) in-kind transfers to poor primary and secondary students through the PRAF (*Bolsón PRAF*); (iv) monetary scholarships provided by the government or private institutions (*becas*); and (v) other cash transfers (*otros bonos*). The latter two categories could be in lempiras or US dollars, while the others could only be in lempiras.

All remaining sources of non-labour income that could not be grouped into one of the above categories could still be recorded as other income (*otros*).

Unfortunately, it is not possible to determine whether the source of some of these non-labour income components is the government or private institutions, such as non-governmental organisations (NGOs). That is why the analysis of poverty impacts below focuses on those components that undoubtedly consist wholly of government transfers. These are the ENEE transfers related to electricity consumption, PRAF transfers and school lunch. One comment about this latter component: it is a somewhat unusual practice to estimate the monetary value of the lunch given to children in public schools and to consider it as non-labour income. Nonetheless, this paper will respect and adhere to the practice.

3 METHODOLOGY

The main aim of this paper is to gauge the effects of Honduran government transfers on income poverty. To that end it adopts a very simple methodology.

The income indicator is per capita monthly household income. Whenever the word "income" is used without qualifiers here, it refers to per capita household income. There is a debate on the need to adjust income for intra-household economies of scale and equivalences[4] but in Honduras, as in most Latin American countries, such adjustments are not usually made—either because of a lack of good consumption and spending data or because of tradition. The official poverty indicators used in the SIERP are based on per capita household income, which this paper therefore uses in order to give poverty estimates that are comparable to the others produced in Honduras.

The analysis begins with a description of the weight of each income component in the national average and its concentration relative to total income distribution. These statistics allow a standard component decomposition of the Gini index (Kakwani, 1980), so as to gauge how government transfers, as well as other income components, interact to produce income inequality.

The next step is to assess the impact of government transfers on income distribution, net of those transfers, so as to evaluate how well the poorest Hondurans are reached by cash and in-kind transfers.

After the targeting assessment, the paper presents the Foster, Greer and Thorbecke (1984) poverty measures—the headcount ratio, the average normalised poverty gap (which measures the intensity of poverty) and the severity of poverty indicators—for the income distribution, net of transfers. Each transfer is then progressively added, and the poverty measures are recalculated to gauge the transfers' impact on poverty. Following the presentation of the indicators, the paper speculates about the amount of resources that would be needed to eradicate poverty in Honduras, given the current levels of income deprivation and inequality.

We then move on to some counterfactual simulations with a view to investigating whether, given the observed transfer amounts, improvements in targeting would lead to a greater degree of poverty reduction. Three simulations are conducted. In the first and second of them, all transfers are distributed according to the incidence of the better targeted transfers—school lunch and the PRAF cash transfer. In the third simulation, all transfers are distributed as though they had the incidence curve of the Mexican CCT programme

(*Oportunidades*), which is deemed to have good targeting (Soares et al, 2007). To reproduce the incidence curves of each reference transfer for the other transfers, we use the share of the reference transfer accruing to each hundredth of the income distribution, net of transfers.

Finally we conduct two simulations in which the total amount transferred is progressively increased until poverty is eradicated. In the fourth simulation the extra amount is distributed according to the incidence of the school lunch, and in the fifth according to the incidence curve of the Mexican CCT programme.

The official Honduran poverty lines are used for poverty estimates. These poverty lines are based on the average monetary value of a basic basket that includes the amount of food needed to meet caloric requirements, as well as some other basic goods. At the time of writing, the official poverty lines for May 2007 were not yet available, and thus we adjusted the September 2006 lines (L\$ 1,814.73 for urban areas and L\$ 915.37 for rural areas) using the national consumer price index as issued by the Central Bank. This gave the following thresholds: L\$ 1,901.81 (US\$ 100) for urban areas and L\$ 959.29 (US\$ 50) for rural areas.

We will not here reproduce the formulas for the Foster, Greer and Thorbecke poverty measures or the Gini index and its decomposition by income components. These are widely known and are presented in all guides to income distribution analysis, such as Cowell (2000) and Lambert (2001).

4 RESULTS

The data in Table 1 show that, as elsewhere, in Honduras the main source of income is labour, which accounts for about four-fifths of total income. Since the concentration indices of labour and non-labour income are almost the same, the contribution of each of them to inequality, as measured by the Gini index, is almost equal to their weight in the national income average. The Gini index is the concentration index of total income, which is presented in the bottom row of Table 1. It reveals that observed income inequality in Honduras is 56.7 per cent of maximum possible inequality, which would be a circumstance in which only one Honduran had all income.[5]

The most important components of non-labour income are international remittances (mainly sent by Hondurans who emigrated to the United States) and within-country private transfers from relatives or non-relatives (other households or institutions). Together, these three components account for 17 per cent of total income, and 78 per cent of non-labour income. Their concentration indices are positive, indicating that this sort of income mainly accrues to the relatively richer strata of Honduran society. Remittances are more concentrated than transfers from relatives, which are more concentrated than transfers from non-relatives.

All remaining components have a small weight in the national average, and they make little contribution to total inequality. With the exception of the government transfers (the italicised components in the lower rows), income components are highly concentrated among the relatively rich.

TABLE 1

Income Components: Average, Weight, Concentration and Contribution to Total Inequality. Honduras, May 2007

Income component	Average (L$)	Weight in national average	Concentration index	Contribution to inequality
Total labour	**1429.45**	**78.5%**	**0.568**	**78.6%**
Rents (alquileres)	21.98	1.2%	0.806	1.7%
Capital earnings (intereses bancarios)	1.86	0.1%	0.778	0.1%
International remittances (remesas del exterior)	194.27	10.7%	0.620	11.7%
Private transfers, from relatives (ayudas familiares)	102.81	5.6%	0.429	4.3%
Private transfers, from non-relatives (ayudas particulares)	7.88	0.4%	0.350	0.3%
Alimony (pensión por divorcio)	1.60	0.1%	0.655	0.1%
Retirement pensions (jubilación)	23.05	1.3%	0.819	1.8%
Pensions (pensión)	3.73	0.2%	0.782	0.3%
Old-age discounts (descuentos por la tercera edad)	0.55	0.0%	0.709	0.0%
Other cash transfers (otros bonos)	1.63	0.1%	0.598	0.1%
Scholarships (becas)	2.89	0.2%	0.663	0.2%
Other non-labour income (otros)	12.26	0.7%	0.837	1.0%
Electricity subsidy (Subsidio de la ENEE)	*0.65*	*0.0%*	*0.283*	*0.0%*
Electricity cash transfer (Bono 80 - ENEE)	*3.68*	*0.2%*	*0.220*	*0.1%*
PRAF - cash transfer (Bonos del PRAF)	*0.12*	*0.0%*	*-0.085*	*0.0%*
PRAF - in-kind transfer (Bolsón del PRAF)	*0.03*	*0.0%*	*-0.069*	*0.0%*
School lunch (merienda escolar)	*12.78*	*0.7%*	*-0.234*	*-0.3%*
Total non-labour	**391.78**	**21.5%**	**0.564**	**21.4%**
Total income (labour + non-labour)	*1821.22*	*100.0%*	*0.567*	*100.0%*

Source: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007.

Together, the government transfers amount to 0.9 per cent of total income. At first sight this might seem little, but in fact it is not. In Brazil and Mexico, income from the large CCT programmes—*Bolsa Família* and *Oportunidades*—amount to 0.5 per cent of total income, while transfers in the Chilean program *Chile Solidário* amount to only 0.01 per cent (Soares et al, 2007). Of course this is not a strict comparison, because in the other countries the total amount refers only to the CCT programmes. If we do not consider school lunch, the Honduran transfers amount to 0.2 per cent of total income.

The concentration of government transfers related to energy consumption is positive, indicating that they are concentrated among the relatively rich. But they are not as concentrated as the other non-labour income components: they have the lowest concentration indices of all the positively concentrated non-labour income components.

The PRAF transfers are negatively concentrated, which means that they mostly accrue to the relatively poor. Nonetheless, the indices are very close to zero, indicating that they contribute little to a reduction in inequality. The most negatively concentrated transfer is school lunch.

The impact of these five transfers on total inequality is very slight—indeed, almost negligible. Only school lunch, which accounts for the bulk of government transfers, makes only

a small contribution to reducing total inequality, given its greater weight in the national average and its greater concentration among the poorer segments of the income distribution. A word of caution on the interpretation of this inequality decomposition: school lunch helps reduce inequality, but it cannot be said that inequality would be 0.3 per cent greater if this component did not exist. In such a case, total inequality and all other concentration indices would change, but we cannot determine how much from this decomposition alone.

Another aspect of the Honduran income distribution shown in Table 1 deserves to be highlighted. Average income in Honduras is low; it is even below the urban poverty line. Thus it cannot be said that positively concentrated transfers, such as those related to electricity consumption, do not reach the poor. A significant proportion of relatively rich Hondurans are poor, since the income of more than half the population is below the poverty line. It can only be said that these transfers are not reaching the extremely poor.

This matter is better understood by examining the incidence curves of the government transfers on the income distribution, net of these transfers, as represented in Figure 1. The PRAF cash transfer is the one that most successfully reaches poorer Hondurans: 20 per cent of the amount transferred goes to the poorest 5 per cent, although from the 10 per cent poorest onwards its targeting performance is somewhat erratic. At the average national income[6] (marked by the thick vertical line at the 73rd hundredth), 78 per cent of the PRAF cash transfer was distributed.

The PRAF in-kind transfer performs less well in reaching the extremely poor, but 88 per cent of it goes to the poorest 73 per cent. The poorest 40 per cent receive 43 per cent of it, compared to the 60 per cent they receive of the PRAF cash transfer and school lunch.

School lunch has the best targeting performance across the distribution. Although it too does not reach the extremely poor as well as the PRAF cash transfer, it performs similarly at some points of the distribution and much better in others. Some 89 per cent of it goes to people with below-average income.

The electricity subsidy and cash transfer have the worst targeting. The poorest 40 per cent receive only about 21–22 per cent of them.

How do these government transfers affect poverty levels? Table 2 provides the answer. The first row gives the poverty levels that would prevail if there were no government transfers. The poverty indicators should be read as follows. If the transfers did not exist, 64 per cent of Hondurans would be poor (the poverty headcount ratio) and the average distance of the income of the poor to the poverty lines would be 32 per cent of the poverty lines (the intensity of poverty). The severity of poverty indicator does not have a straightforward interpretation (since it includes a measure of the inequality of the distribution of the poor's income among the poor) but its level would be 0.2046.

The PRAF in-kind transfer, the least significant transfer component, has a negligible impact on the three poverty indicators. The PRAF cash transfer brings about a small reduction in the headcount ratio and in the intensity of poverty. Its effect on the severity of poverty, however, is double its effect on the other indicators—signifying that it makes the poor less unequal in their income deprivation. The two PRAF transfers are those that have the least impact on poverty.

FIGURE 1

Incidence of Transfers per Hundredths of the Net Income Distribution. Honduras, May 2007
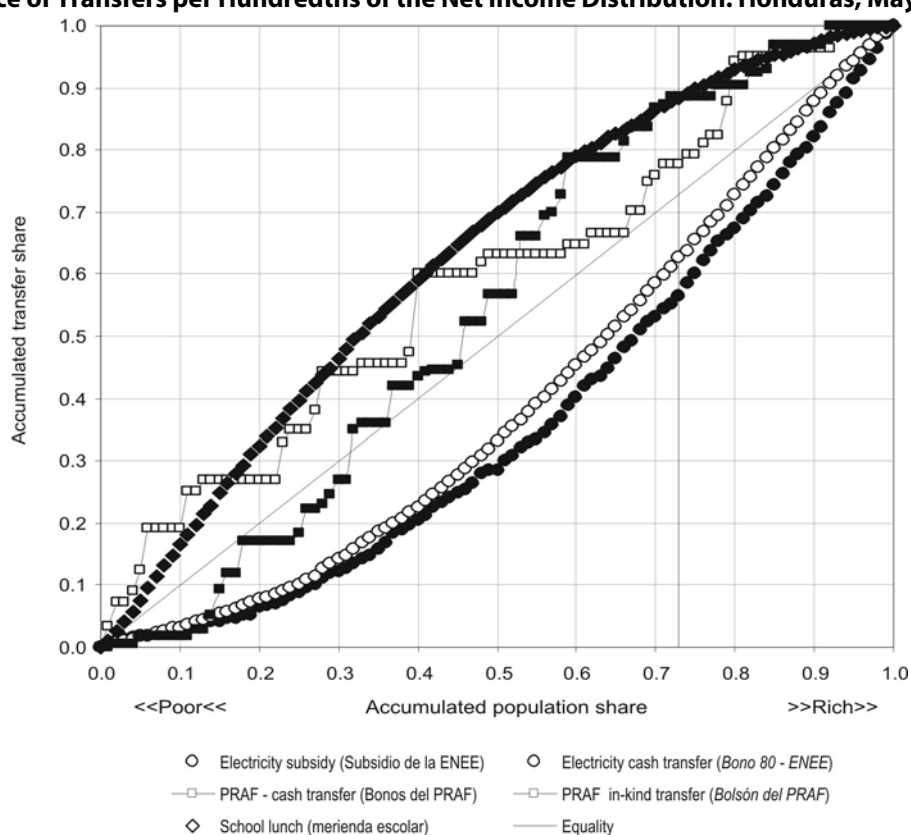
Source: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007.

TABLE 2

Impact of Transfers on Poverty. Honduras, May 2007

Income	Headcount ratio (P0)		Intensity (P1)		Severity (P2)	
	Value	% change	Value	% change	Value	% change
Net of transfers	64.07%	...	0.3241	...	0.2046	...
+PRAF in-kind transfer (*Bolsón del PRAF*)	64.07%	0.00%	0.3241	-0.01%	0.2046	-0.01%
+PRAF cash transfer (*Bonos del PRAF*)	64.06%	-0.02%	0.3240	-0.02%	0.2045	-0.04%
+Electricity subsidy (*Subsidio de la ENEE*)	64.03%	-0.05%	0.3238	-0.07%	0.2044	-0.09%
+Electricity cash transfer (*Bono 80 - ENEE*)	63.91%	-0.19%	0.3224	-0.43%	0.2032	-0.58%
+School lunch (*merienda escolar*)	63.53%	-0.59%	0.3134	-2.80%	0.1934	-4.79%
Total income	*63.53%*	*-0.84%*	*0.3134*	*-3.31%*	*0.1934*	*-5.47%*

Source: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007.

Although they are more concentrated on the relatively rich and are targeted less well, each of the transfers tied to low electricity consumption has a greater impact on poverty than the two PRAF transfers together. Nonetheless, they have only a very small impact on all poverty indicators. Even with regard to the most sensitive indicator, the severity of poverty, the fall caused by these transfers is less than 1 per cent.

As one would expect from the other results presented so far, school lunch is the government transfer that has the most impact on poverty. It reduces the intensity of poverty by almost 3 per cent and the severity of poverty by almost 5 per cent.

According to the EPHPM data,[7] all transfers together amount to L$ 130 million per month[8] (about US$ 7 million). Nonetheless, they are responsible for a meagre reduction of less than 1 per cent of the headcount, and therefore are not helping the poor to escape poverty. But they do help alleviate poverty, reducing its intensity by 3 per cent. Their greatest impact is on the severity of poverty, which the transfers cause to fall by a little more than 5 per cent.

Given the observed poverty gap after government transfers, 22 per cent of total income would still have to be redistributed to the poor in order to eradicate poverty in Honduras. In absolute figures, this would amount to about L$ 3 billion (US$ 161 million) per month. The average cash transfer would have to be about L$ 641 (US$ 34) per month to 4.7 million poor Hondurans.

In an optimistic scenario, poverty in Honduras could be eradicated through redistribution. The "surplus" income of Hondurans above the poverty line amounts to 46 per cent of total income. In other words, the "affluence gap" is more than twice the poverty gap. If heavy taxation and perfect targeting could channel 30 per cent of the income of non-poor Hondurans to the poor, poverty could be eliminated.

Since the level of income inequality is very high in Honduras, a "Robin Hood" taxation strategy would secure all the resources needed to eradicate poverty by limiting the highest income to about L$ 6,715 (US$ 353) per month and collecting everything that exceeds this threshold. This would affect only the 3.5 per cent richest Hondurans, and after tax they would still have an income 3.5 times higher than the urban poverty line, and seven times higher than the rural poverty line.

Since perfect targeting is impossible in practical terms, and since the richest Hondurans would surely resist such a radical poverty reduction plan, it is very unlikely that Honduras will be able to eradicate poverty through redistribution alone. Setting aside optimistic scenarios, if redistribution policies in Honduras succeed in alleviating poverty, preferably extreme poverty, this can already be judged a great accomplishment.

Even if it is not feasible to eradicate poverty in Honduras through transfers, there is room to speculate as to whether these transfers could have a greater impact on poverty, and especially on poverty alleviation. To investigate this matter, we conducted some counterfactual simulations.

The results of the first simulation are presented in Table 3. In this simulation, first we gauge the impact of school lunch on the distribution, net of all transfers. The results differ slightly from those in Table 2, because the order in which the components are added matters. After that, we calculate the poverty measures for the distribution including school lunch, but net of the remaining transfers. The simulation then consists of distributing the total amount of the PRAF and ENEE transfers as though they were targeted in the same way as school lunch, making their incidence curves equal (see Figure 1).

In this simulation, it is as though the transfers were given together with school lunch. Hence, if the PRAF and ENEE transfers were distributed following the incidence of school lunch, the reduction in the headcount ratio would be slightly smaller than observed. But the decline in the intensity and severity of poverty would be greater in the counterfactual distribution—though not much greater, as seen in the bottom row of Table 3.

TABLE 3

Impact of Transfers on Poverty—Counterfactual: All Transfers with the Incidence of School Lunch. Honduras, May 2007

Income	Headcount ratio (P0)		Intensity (P1)		Severity (P2)	
	Value	% change	Value	% change	Value	% change
Net of transfers	64.07%	...	0.3241	...	0.2046	...
+School lunch (*merienda escolar*)	63.67%	-0.63%	0.3151	-2.79%	0.1949	-4.78%
+PRAF/ENEE w/ incidence of school lunch	63.55%	-0.18%	0.3119	-1.01%	0.1914	-1.78%
Total income (counterfactual distribution)	63.55%	-0.81%	0.3119	-3.77%	0.1914	-6.48%
Observed relative to counterfactual distribution	***63.53%***	***-0.02%***	***0.3134***	***0.48%***	***0.1934***	***1.07%***

Source: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007.

Figure 1 shows that the targeting performance of the PRAF cash transfer is similar to that of school lunch, though it is better targeted among the extremely poor. Hence the second simulation consisted of equalising the incidence curves of the school lunch, in-kind PRAF and ENEE transfers with that of the PRAF cash transfer. This simulation tells us what would happen to poverty if these other transfers ended and the amount transferred by them was used to increase the value of the PRAF cash transfer. The results are presented in Table 4.

As in Table 2, adding the PRAF cash transfer to the distribution, net of all transfers, has almost no impact on any of the poverty indicators. When we add the remaining transfers according to the incidence of the PRAF cash transfers, the results are slightly different from the previous simulation. The headcount ratio of the counterfactual distribution is a little smaller than that observed, and both the intensity and severity of poverty are less than observed. If all transfers were distributed as the PRAF cash transfer, however, there would be less poverty alleviation than if they were distributed with the incidence of school lunch. These results suggest that although the PRAF cash transfer performs better than others at the very bottom of the income distribution, part of it is accruing to the least poor, whose income is closer to the poverty lines.

In both simulated scenarios, however, the impact on poverty would differ little from what is observed. Hence the final simulation consists of considering what would happen if the incidence of all these five government transfers were as good as that of the CCTs of Brazil, Mexico or Chile. Since the targeting performances of these programmes are similar (Soares et al, 2007), we chose the Mexican CCT for this exercise. We distributed the total amount transferred by the government in Honduras according to the incidence curve of *Oportunidades*, as presented by Soares et al (2007). Table 5 presents the results .

TABLE 4

Impact of Transfers on Poverty—Counterfactual: All Transfers with the Incidence of PRAF Cash Transfer. Honduras, May 2007

Income	Headcount ratio (P0)		Intensity (P1)		Severity (P2)	
	Value	% change	Value	% change	Value	% change
Net of transfers	64.07%	...	0.3241	...	0.2046	...
+PRAF cash transfer (*Bonos del PRAF*)	64.06%	-0.02%	0.3240	-0.02%	0.2046	-0.04%
+PRAF in-kind/ENEE/school lunch w/ incidence of PRAF cash	63.49%	-0.89%	0.3131	-3.37%	0.1929	-5.69%
Total income (counterfactual distribution)	63.49%	-0.91%	0.3131	-3.39%	0.1929	-5.72%
Observed relative to counterfactual distribution	***63.53%***	***0.07%***	***0.3134***	***0.09%***	***0.1934***	***0.27%***

Source: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007.

TABLE 5

Impact of Transfers on Poverty—Counterfactual: All Transfers with the Incidence of Mexican Conditional Cash Transfer. Honduras, May 2007

Income	Headcount ratio (P0)		Intensity (P1)		Severity (P2)	
	Value	% change	Value	% change	Value	% change
Net of transfers	64.07%	...	0.3241	...	0.2046	...
+All transfers w/ incidence of Mexican CCT	63.90%	-0.26%	0.3091	-4.61%	0.1849	-9.65%
Observed relative to counterfactual distribution	***63.53%***	***-0.58%***	***0.3134***	***1.37%***	***0.1934***	***4.62%***

Sources: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007; Soares et al (2007).

Table 5 shows, on the one hand, that the impact on the headcount ratio would be even smaller than in previous simulations. On the other hand, the impact on the intensity and severity of poverty would be significantly greater. If all government transfers were distributed among Hondurans as the Mexican CCT was distributed among Mexicans, they would lower the intensity of poverty of the net distribution by almost 5 per cent, and the severity of poverty by almost 10 per cent. The observed severity of poverty measure is almost 5 per cent greater than it would be under this scenario.

These three simulations indicate that if the amount transferred is kept at 0.9 per cent of total income, its impact on poverty will be small even if targeting improves significantly. This is unsurprising, since the poverty gap is 22 per cent of total income. Thus, if Honduran society wants government transfers to have substantial effects on poverty, the amounts transferred must increase. The question, then, is by how much should they grow?

To answer this question we conducted two additional simulations. In both, we departed from observed poverty levels (that is, including the amounts already transferred) and we distributed more income in 1 per cent increments of total income. In other words, first we distributed 1 per cent, than 2 per cent, 3 percent and so forth, until we reached the percentage of total income that would have to be distributed to eradicate poverty. In one of the simulations the extra income was distributed in line with the incidence curve of school lunch, and in the other it was allocated according to the incidence curve of the Mexican CCT. The results are presented in Figures 2 and 3.

FIGURE 2

Impact of Transfers on Poverty—Counterfactual: Increasing Total Amount of Transfers with the Incidence of School Lunch. Honduras, May 2007
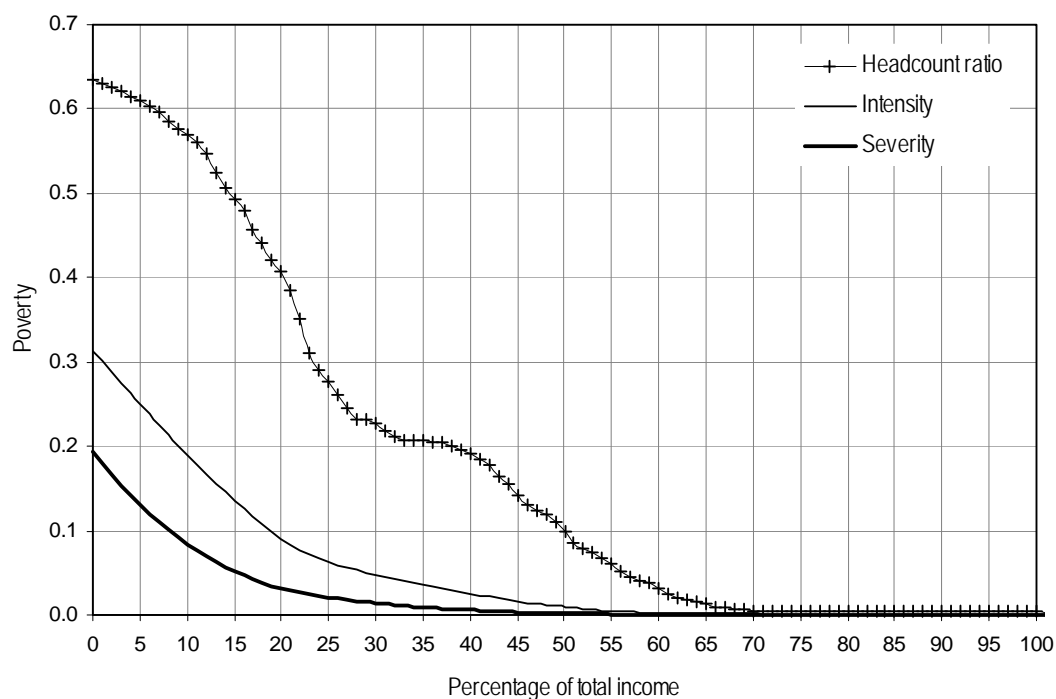
Source: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007.

The first interesting result of these simulations is that the total amount of extra income that would have to be distributed in order to eradicate poverty is smaller if the transfers followed the incidence curve of school lunch than if they followed that of the Mexican CCT: 103 per cent of total income, against 292 per cent. If 70 per cent of total income were distributed as school lunch is distributed, poverty would be a residual phenomenon in Honduras. But if this same 70 per cent were distributed as the Mexican CCT is distributed, 16 per cent of Hondurans would still be poor—though the poverty would be "light" because their incomes would be very close to the poverty lines.

Although this result seems counterintuitive, it is explained by the fact that the Mexican CCT accrues mostly to the extremely poor, while school lunch is more uniformly distributed among all the poor. Poverty levels in Mexico are much lower than in Honduras, and the Mexican CCT is designed to reach extremely poor Mexicans: its incidence curve mirrors its goals. At 70 per cent of total income, the extremely poor would cross the poverty line, but some of the least and intermediate poor would not.

The percentage of total income needed to eradicate poverty under both scenarios is much greater than the 22 per cent required to close the poverty gap, because targeting is imperfect under both of them. There are leakages to the non-poor, and the share of transfers received by each of the poor is not sufficiently balanced to bring their incomes to the poverty lines.

It is obviously unfeasible to increase the transfer size to 70 per cent of total income. It is doubtful that even smaller increases, such as to 20 per cent of total income, are viable. But what would happen in both scenarios if the extra transfers were in the range of between 1 and 20 per cent of total income?

FIGURE 3

Impact of Transfers on Poverty—Counterfactual: Increasing Total Amount of Transfers with the Incidence of Mexican Conditional Cash Transfer. Honduras, May 2007
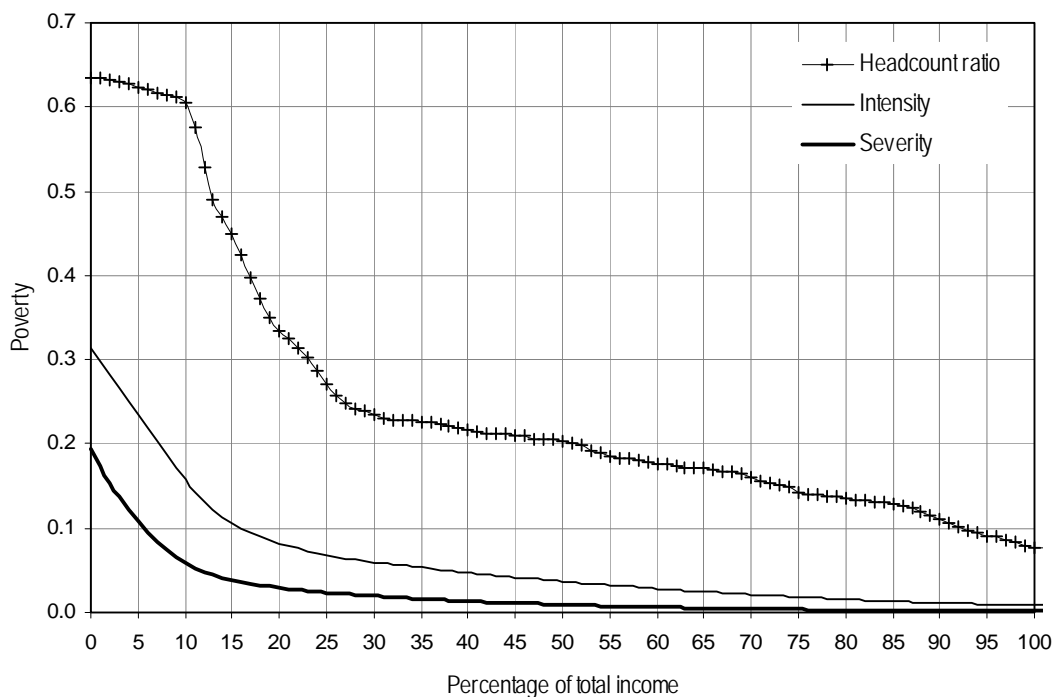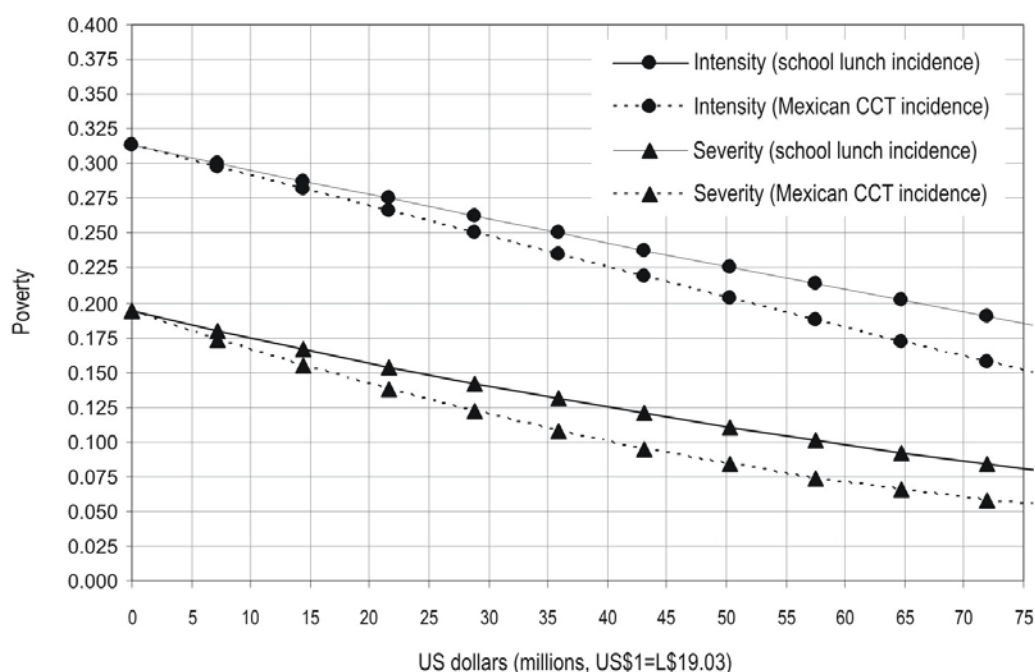

Sources: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007; Soares et al (2007).

Up to 10 per cent of total income, the scenario in which the extra amount is distributed in the same manner as school lunch can bring about a steeper decline in the headcount ratio. Between 10 and 20 per cent of total income, however, the decline in the headcount ratio is steeper in the scenario presented in Figure 3. Again, this is because, with the school-lunch incidence, a large part of the transfers accrues to the poor whose income is closer to the poverty lines. When the amount transferred increases, the least poor cross the poverty threshold and even move far from it. With the Mexican CCT incidence, the least poor receive less and thus more people approach the poverty lines. Or, when the amount transferred is more than 10 per cent of total income, more people are able to pass the poverty thresholds.

Does this mean that if the amount transferred could only increase to less than 10 per cent of total income, the school-lunch targeting is preferable to that of the Mexican CCT? The answer is: yes, if you only care about the headcount ratio; no, if you care about the intensity and severity of poverty. These other poverty measures decline more steeply for smaller transfer values distributed with the incidence of the Mexican CCT.

To highlight the differences, Figure 4 presents a more detailed view of the data from Figures 2 and 3 for transfers of up to 10 per cent of total income. The unit of the horizontal axis has been changed from percentage of total income to millions of US dollars, but the round markers are at 0, 1, 2, 3 per cent of total income and so forth. One per cent of total income is around L$ 137 million, a little more than US$ 7 million.

FIGURE 4

Detailed Comparison of Figures 2 and 3. Honduras, May 2007

Sources: INE, Encuesta Permanente de Hogares de Propósitos Múltiples (EPHPM), May 2007; Soares et al (2007).

Figure 4 reveals that in the range of feasible transfers, a targeting strategy that focuses on the extremely poor, here represented by the incidence of the Mexican CCT, has greater poverty-alleviation effects. Although transfers in this range, distributed as school lunch is distributed, would have a greater impact on the headcount ratio, clearly they would not have such an impact on the intensity and severity of poverty. They would take the least poor out of poverty but the rest of the poor, particularly the extremely poor, would not experience as much alleviation as they could if their poverty were tackled first.

5 CONCLUSIONS

Honduras is not only a low-income country, but also a very unequal one. The level of inequality is high in the distribution of almost all income components, and average per capita household income is lower than the urban poverty line. Because of the combination of a high level of inequality and low average income, more than half the population are poor according to official Honduran poverty lines. Hence, even some of the richer half of the Honduran population are poor, and the level of inequality among the poor is also very high. As in other Latin American countries, the Honduran state does not efficiently play its role in counteracting the inequalities that arise from the labour market through transfers and services for the poorer segments of the population.

It is often thought that low-income countries are unable to eradicate poverty using their own resources, because the "surplus" income of those above the poverty lines is not enough to close the poverty gap. This is not the case in Honduras. Given the high level of inequality, the "affluence gap" (that is, non-poor Hondurans' income above the poverty lines) is more than

twice the poverty gap. At least theoretically, therefore, it is possible to eradicate poverty through redistribution. This paper has shown that in a very optimistic hypothetical scenario, with "Robin Hood" taxation and perfect targeting, poverty could be eradicated simply by making the 3.5 per cent richest Hondurans less rich. Although we recognise that this is not feasible in the real world for several reasons, it is a fact that should be kept in mind because it suggests that if more effort is made to fight poverty, Honduran society can achieve greater poverty reduction and alleviation.

Given the limitations of the data source, we were unable to evaluate the impact of all government transfers on poverty. But we have shown that some non-labour income that consists partly of government transfers—such as pensions, old-age discounts and scholarships—are even more concentrated on richer Hondurans than labour earnings.

It is also clear that the least poor, as well as those Hondurans who are not poor but are not far above the poverty lines, have their own strategies to cope with low income, given the significant share of non-labour income that consists of international remittances and private transfers. But extremely poor Hondurans are not benefiting from such strategies because these income components accrue mostly to the relatively rich.

We evaluated the incidence and impact of some major government transfers on poverty, namely: the cash and in-kind transfers of the PRAF; the transfers of the national electricity company, ENEE, which are conditional on low electricity consumption; and the school lunch given to students at public schools—the value of which, somewhat unusually, is estimated and counted as non-labour income. Let us review what we have learned about the impact of each of these transfers on poverty.

Together, the cash (*Bonos*) and in-kind (*Bolsón*) PRAF transfers have almost no impact on poverty. Considering the income distribution including transfers, we have seen that their concentration indices are negative but very small, meaning that they make little contribution to reducing inequality. Looking at the income distribution net of transfers, with a view to assessing their incidence, we noted that they do reach the poor (the PRAF cash transfer performs better than the in-kind transfer in this regard) but they do so rather uniformly. In other words, these transfers are not taking full account of the inequality of income deprivation among the poor.

But the main reason why the PRAF transfers have a negligible impact on poverty is that the amount transferred is very small. This was confirmed by the counterfactual simulation in which we distributed all other government transfers as the PRAF cash transfer was distributed. Under this scenario, which is equivalent to increasing the amount transferred by PRAF from less than 0.1 per cent to 0.9 per cent of total income, the impacts on poverty would be greater than the observed impact of all transfers.

The ENEE transfers (*Subsidio* and *Bono 80*) have a very different profile from those of the PRAF. They accrue mostly to the relatively rich, though they are the least concentrated of the positively concentrated income components. Looking at their incidence we found that they do reach the poor, but that they are more successful in reaching the least poor and they have the most leakage to the non-poor population of all the government transfers examined here.

Since the amount of these transfers is considerably larger, however, they have a more significant impact on poverty than the PRAF transfers. The simulations showed that if these transfers were used to increase the amount transferred by PRAF instead of being given to

households with low electricity consumption, or even if they were distributed with the same incidence as school lunch, the impact of government transfers on poverty could be greater. Indeed, since the incidence of school lunch is equivalent to that of the PRAF cash transfer, and since the PRAF transfers have almost no impact because of their size, the differences between poverty in the simulated scenarios—in which the total amount transferred was fixed—and observed poverty were *almost entirely* due to the reallocation of ENEE transfers.

Of all income components, school lunch was undoubtedly the most pro-poor, being the most negatively concentrated. Its incidence revealed that it was the most consistently targeted government transfer, given that it reached the extremely poor almost as well as the PRAF cash transfer, but had considerably lower leakage to the non-poor. As the most pro-poor transfer whose amount was the largest among the transfers examined, it had the greatest impact on poverty.

Although it is debatable whether school lunch should have its monetary value estimated and counted as non-labour income, the fact that it is the most important government transfer for poverty alleviation yields some interesting insights. The simulation with a fixed amount and the incidence of a Honduran government transfer as reference that most reduced the intensity and severity of poverty was that which distributed all government transfers with the incidence of school lunch. Thus a cash transfer conditional on school attendance, without any kind of means testing, given to all families with children in the Honduran public education system, and transferring 0.9 per cent of total income, could have greater impacts on the intensity and severity of poverty than all the examined government transfers together.

The PRAF cash transfer and school lunch were the best-targeted transfers examined. We noted, however, that they were rather uniformly distributed among the poor and that the PRAF incidence could bring about a slightly bigger reduction in the headcount ratio—albeit with less impact on the intensity and severity of poverty because part of it goes to the least poor who are able to cross the poverty thresholds by receiving small transfers.

This prompted us to carry out a simulation in which the government transfers were distributed with improved targeting. To that end, we distributed these transfers as those of the CCT programme *Oportunidades* are distributed in Mexico. This simulation showed that if there were the option of prioritising the extremely poor, given the amount transferred in Honduras, there could be a smaller reduction in the poverty headcount ratio but a greater impact on the intensity and severity of poverty. This is because a greater share of the transfers would go to the extremely poor, narrowing the gap between their incomes and the poverty lines, though not enabling them to cross those lines.

Then we went further and simulated what could happen to the poverty indicators if the amounts transferred were increased under two targeting scenarios: one in which the transfers are more uniformly distributed among the poor, represented by the incidence of school lunch; and the other in which the extremely poor are prioritised, represented by the incidence of *Oportunidades*. We discovered that in the range of feasible increases, less than 10 per cent of total income, the targeting of school lunch (similar to that of the PRAF cash transfer) would bring about a greater reduction in of the headcount ratio but smaller reductions in the intensity and severity of poverty.

This leads us to the choices that must be made by a society that wants to tackle poverty in a context of limited resources. Honduran society can give priority to reducing the headcount ratio by providing small transfers to all the poor, enabling the least poor to cross the poverty lines but leaving the extremely poor almost untouched in their income deprivation. Or it can give priority to reducing the intensity and severity of poverty by concentrating its efforts and transfers on the extremely poor, so as to make their poverty a lighter burden and the poor less unequal.

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NOTES

1. Honduras (2008).

2. This has been widely discussed recently in Honduran public opinion and many articles on the matter have appeared in major newspapers such as *El Heraldo*, *La Tribuna* and *La Prensa*.

3. Although the livestock section of the questionnaire says that the information covers the "last 12 months", the interviewer's manual (INE, 2007) for the May 2007 round says that for livestock the reference period should be the "last three months". Hence the correct reference period is uncertain. This a minor issue, however, because income from sales of livestock and their by-products has almost no weight in average labour income, and because constructed variables will be used.

4. See Cowell and Mercader-Prats (1999) for an overview of this debate.

5. This interpretation of the Gini index is based on its relationship with the Lorenz curve. In this regard see Cowell (2000) and Lambert (2001).

6. The average income of the distribution with transfers, shown in the bottom row of Table 1.

7. As the following figures are from a household survey, they might not match those from the administrative records of the Honduran government.

8. For the sake of comparison, Brazilian cash transfer programmes (*Vale-Gás*, *Bolsa-Escola*, *Bolsa-Alimentação*, *Cartão-Alimentação* and *Bolsa-Família*) transferred the equivalent of US$ 359 million to beneficiaries in May 2007 (data from the registry of the Brazilian Ministry for Social Development, available at <http://www.mds.gov.br>).