Efficient responses to targeted cash transfers

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December 14, 2009

1   Introduction

Since the implementation of *Oportunidades* (formerly *Progresa*), a conditional cash transfer program started in Mexico in 1998, similar programs have been put in place in many developing countries and have become extremely popular, as they have been shown to result in important reductions in poverty and to have promoted accumulation of human capital and health.[1] The evaluation of many of these programmes has brought to light a remarkable fact: following this injection of cash in the budget of poor households, total expenditure and consumption increase as expected, but also the consumption of food increases, proportionally, at least as much, so that the share of food among beneficiaries either increases or stays constant. This has been found to be the case in Ecuador (Schady and Rosero, 2008), in Columbia (Attanasio, Battistin and Mesnard, 2008), in Mexico in the context of the urban version of the program (Angelucci and Attanasio, 2008) and other countries, as documented in a recent World Bank Policy Research Report (2009). This finding contradicts the standard view that, as a necessity, food has an income elasticity less than unity so that when total consumption increases, the share of food should decrease. The fact that food is a necessity is one of the few empirical regularities that economists can rely on. In Mexico, as in many countries, the budget share of food is shown to increase or remain constant following the transfer of around 20% of income to households. We present evidence that the changes observed in the consumption of food cannot be predicted by a standard Engel curve for food, but that they can be accurately described by accounting for the fact that the cash transfer is held by women. The fact that this affects decisions cannot be accounted for in

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[1] A World Bank Policy Research Report, 2009, compiles the results from numerous studies on Conditional Cash Transfers programmes and their effects.

standard models of household behaviour. It appears to be necessary to appeal
to the notion of power, which can easily integrated into a collective model, where
the control over resources can be said to constitute a distribution factor, that is
an element which is pertinent to choice, but does not affect either preferences
or the budget constraint.

The fact that the cash transfers are systematically put in the hands of women
implies that the program has a double effect: an effect on the level of total
expenditure, and an effect on the share of resources controlled by each household
member, with an increase of the share controlled by the wife. Standard Engel
curves, derived from a unitary model of utility maximization, control for the
level of total expenditure, but not for the manner in which resources are shared
between household members, which is why they miss the effect of the program
on consumption shares. Modified Engel curves that control both for the increase
in total expenditure and the increase in the share of resources controlled by the
wife do capture the variation in expenditures subsequent to the implementation
of the program. In practice, we show that the introduction of the program shifts
the Engel curves. However, we will go beyond this and, by considering more
than one commodity, and test whether these shifts in the pattern of demand can
be rationalised within the framework of a collective model. We will implement
new tests of collective rationality developed by Bourguignon, Browning and
Chiappori (2007), using the concept of z conditional demands.

2   Data

We do not present the well known *Oportunidades* program here, but refer the
reader to the World Bank CCT Policy Research Report, 2009 for a detailed
description and analysis of its effects.

We use three waves of the survey, October 1998, May 1999 and November
1999. Our interest is in the effect of the program on outcomes for the poor, so
that we select a sub sample of households considered as poor (in terms of the
program) in 1997, residing either in control or treatment villages. In order to
work with a homogenous sample in terms of number of decision makers, we also
select households in which there are no more than two adults and any number
of children.

We consider the effect of the program on total food expenditure, which

represents 80% of non durable expenditure on average; and on the composition of the food basket consumed in the household. In order to assess whether resource control has an effect on the composition of the diet and its quality, we consider not only the goods purchased but also expenditure on five food groups: starches, wheat and rice; pulses; fruit and vegetables; meat, fish and dairy products; and finally other foods; including a valuation of in kind consumption. There is recent evidence to the effect that women tend to favour a diet with better quality calories, and we will investigate this.

3   Methodology and hypothesis

We estimate both traditional and augmented Engel curves for food. In the former, demand depends on the amount of income or total expenditure of the household, whereas the latter allow to account for the amount controlled by women.

We also estimate a demand system for the components of the food basket, and implement tests of collective rationality derived in Bourguignon, Browning and Chiappori (2007).