



NOPOOR POLICY BRIEF



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Enhancing Knowledge for
Renewed Policies against Poverty

No.21

EVADING THE FAMILY TAX: A COSTLY HIDE-AND-SEEK STRATEGY EVIDENCE FROM A LAB-IN-THE-FIELD EXPERIMENT IN SENEGAL

April 2017

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This study estimates the hidden cost of informal redistribution in urban Senegal. It is based on a lab-in-the-field experiment combined with a small-scale randomized controlled trial. The results show high costs associated to avoiding the family tax, a large majority of people being to pay a high cost to keep their gains in private. Moreover, when given the opportunity to hide, people decrease the transfers to kin and increase private and health expenses.

INTRODUCTION

In developing countries, especially in sub-Saharan Africa, individuals frequently transfer a substantial share of their income to members of their social networks: members of the household or extended family, friends, and neighbours. This informal redistribution shape the social and economic lives of individuals: it represents a safety net, but is also driven by social motives such as social status seeking or strong redistributive norms (Platteau, 2000, 2006, 2014).

Akin to a taxation system, redistributive pressure can induce strong distortions in economic decisions for labour supply, investment and resource allocation, through widespread strategies aimed at circumventing this redistributive pressure. Such adverse effects of informal redistribution can subsequently constitute an important barrier to economic development in these countries.

However, it is difficult to draw a causal link between informal redistribution and low savings or investment rate for instance, due to the difficulty to measure redistributive pressure using

observational data. Few pioneer papers have relied on lab-in-field or field experiments (Jakiela and Ozier, 2015).

The aim of the present study is to both measure the individual cost of the social pressure to redistribute, and to relate it to distortions in real-life resource allocation decisions. The study takes place in Senegal: a lab-in-the-field experiment was conducted in the poor and densely-populated urban suburb of Dakar, the capital city.

Three main research questions are addressed:

- What is the cost of redistributive obligations? In other words, how much do people value being able to relax these obligations? And, who is trying to escape these social obligations to redistribute?
- How does redistributive pressure distort resource allocation choices? How do people's resource-allocation choices change when they are offered the opportunity to escape redistributive pressure?
- From whom are people hiding their income: their household members, their kin outside the household, or their neighbors?

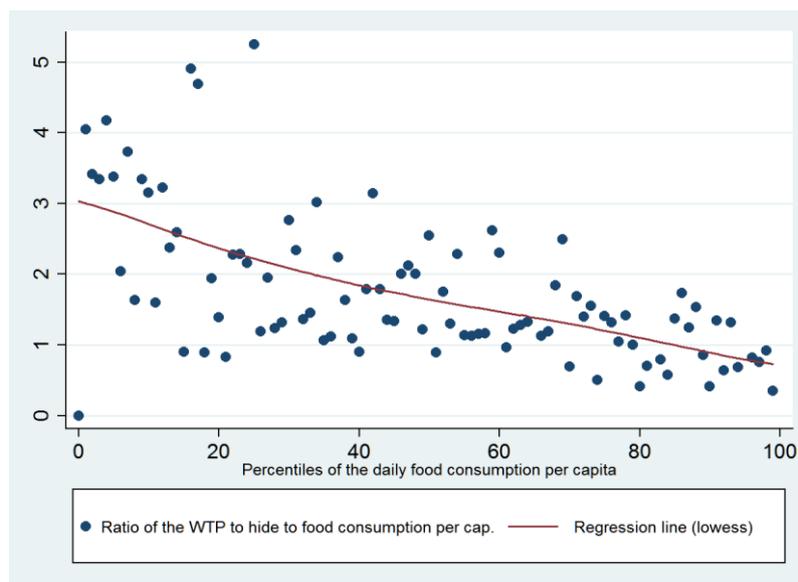
The lab experiment will allow us to measure in a controlled framework how much people are willing to pay to keep their resource hidden from peers and to vary exogenously on the one hand, who gets the money in private or in public and on the other hand, who observes it.

EVIDENCE AND ANALYSIS

What is the cost of redistributive obligations?

People are ready to pay a lot to hide income: 65% of subjects prefer to receive their gains in private rather than in public, and among them, they are on average ready to pay on average 14% of their gains to conceal what they earned.

Figure 1: The evolution of the relative Willingness-to-Pay (WTP) to Hide income across the percentiles of the level of household food consumption per capita



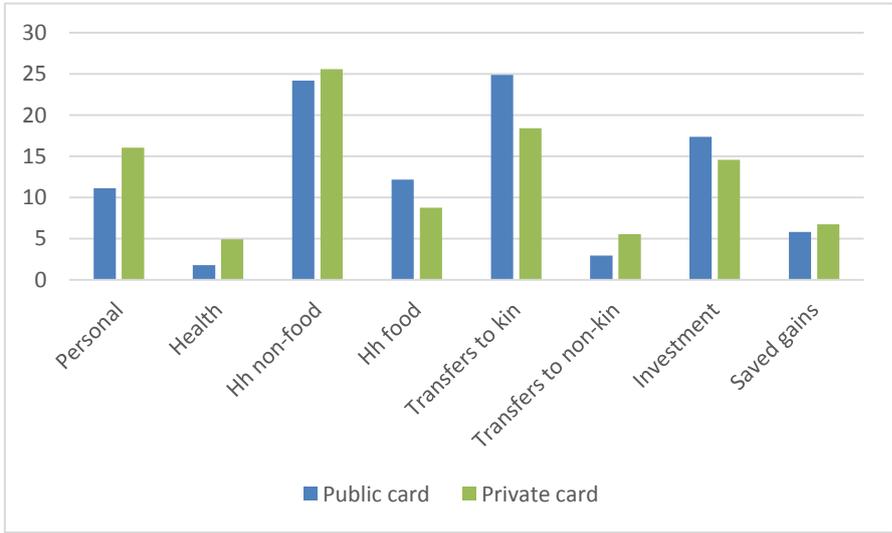
Source: Boltz, Marazyan, Villar (2016). The relative WTP is the ratio of the WTP to hide income to the level of household food consumption per capita.

This can be interpreted as a measure of the net deadweight loss for the economy due to redistributive pressure. Interestingly, men are willing to pay more than women are. Moreover, for both men and women, the poorest are willing to pay a higher price to hide their earnings than the richest are, relative to their consumption level: people below the median household daily food consumption are willing to pay a that is double the one paid by the people above the median, controlling for the level of household consumption (Figure 1).

How does redistributive pressure distort resource allocation choices?

From the first step, it is possible to identify the pool of the population that is willing to pay to hide income, which can be interpreted as people who are willing to escape the family tax. These individuals transfer 25% of their income to kin when they received the gains in public. However, similar individuals who got their income in private transferred 6.5 percentage points less to kin, which represents a decrease of 27% of the share of gains devoted to transfers to kin (Table 1). What they can thereby save, is reallocated in private goods and health care. Women in poorest households invest less in productive investment, when they are able to hide. This is consistent with qualitative evidence found in Senegal, suggesting that women make small investments, so as to have more control over their resources and thus, escape social obligations to transfer.

Figure 2: Allocation of the gains received in public or private in shares



From whom do people hide their income?

Separating transfers made to household members from transfers made to other kin, it appears clearly that people try to escape from their kin outside the household (Table 1). Moreover, looking at differences across gender, women are willing to pay a higher price for income privacy if one of their kin from the community participates in the same session. They also transfer less to kin outside the household, but not to household members, when they can hide their gains. In contrast, men transfer less, both to kin within and outside the household, when they are willing and able to hide.

POLICY IMPLICATIONS

The strong desire for income privacy and the large impacts of redistributive pressure on the way people spend their income point to the importance of designing well-targeted public redistribution schemes. It also highlights the necessity to device adequate financial products such as savings, products that guarantee privacy from other household or kin members. The study indicates that a well-designed savings scheme would allow the majority of the population to save a significant portion of their income that they currently use to conceal them from the sight of others. Such programs can have

a high leverage in terms of poverty reduction, as the population at stake is the poorest, especially women. Such study is necessary to identify barriers to economic development and to assess the effects of expanding access to redistributive policies in economies with family-provided insurance and strong sharing norms. This is particularly relevant to be able to assess the effect and to target efficiently State interventions, such as cash-transfers programs – e.g. Senegal is currently implementing such a program.

To conclude this brief, it is important to stress that there are two other important strategies developed by people to escape social obligations to redistribute that are beyond the scope of this study: migration out of the native community (whether national or international), and conversion into religious sects or fraternities (Platteau, 2014). While the former solution allows individuals to escape the physical presence of being taxed by kin, the second one shelters them spiritually by integrating into a new system of inter-individual solidarity that transcends or cuts across kinship links.

RESEARCH PARAMETERS

To answer the research questions raised in the study, the authors conducted a lab-in-the-field experiment in poor, densely populated urban communities in the Dakar region, Senegal, in June 2014. The experiment uniquely combines a lab phase and a small-scale randomized controlled trial (RCT) for a random sample of 797 participants. Figure 2 at the end of the brief summarizes the steps of the experiment.

To tackle the first question, the willingness-to-pay (WTP) to hide income is elicited in the lab phase: we asked each participant how much they were willing to pay to hide their income. Choices between public or costly private gains were incentivized by a subsequent lottery.

For the second question, the authors estimated the impact of redistributive pressure on real-life decisions. Following a lottery, some participants got the opportunity to hide part of their gains from other participants. Participants were left free to choose how to allocate their gains once back home, then, they were resurveyed one week later to observe their decisions.

For the third question, namely from who people are hiding, the distinction is made between transfers made within the household, to kin or non-kin in the community. Moreover, because people were randomly allocated in sessions, the composition of who attended the session and observed or not the incomes varied in terms of the presence of kin, household members and non-kin. This enables to identify to what extent the results are driven by redistributive pressure from within the household, from kin in the community, or from other neighbours.

FURTHER READINGS

Boltz, Marie, Karine Marazyan, and Paola Villar, “Income Hiding and Informal Redistribution: A Lab-in-the-Field Experiment in Senegal”, Working Paper NoPoor n°, 2017

Jakiela, Pamela and Owen Ozier, “Does Africa Need a Rotten Kin Theorem? Experimental Evidence from Village Economies”, *The Review of Economic Studies*, 2015

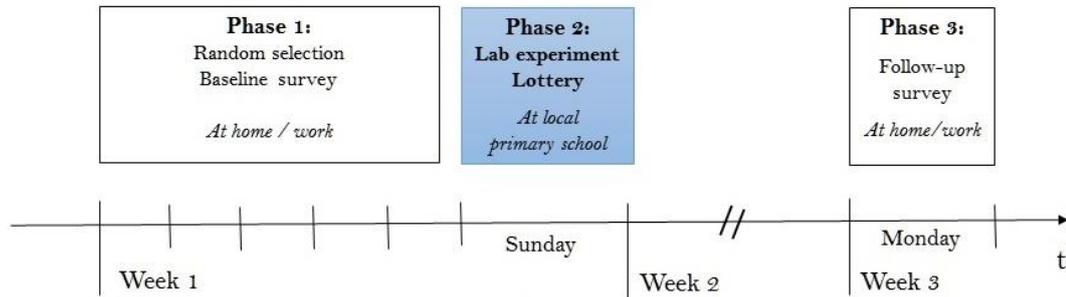
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Platteau, Jean-Philippe, “Chapter 12 Solidarity Norms and Institutions in Village Societies: Static and Dynamic Considerations, in Kolm and Mercie Ythiers, eds, *Foundations*, Vol. 1 of *Handbook of the Economics of Giving, Altruism and Reciprocity*, Elsevier, 2006, pp. 819-886.

Platteau, Jean-Philippe, “Redistributive Pressures in Sub-Saharan Africa: Causes, Consequences, and Coping Strategies”, in Akyeampong, Bates, Nunn, and Robinson, eds., *Africa’s Development in Historical Perspective*, Cambridge University Press, 2014, pp. 153-207.

Figure 2: Protocol of the lab experiment in the field

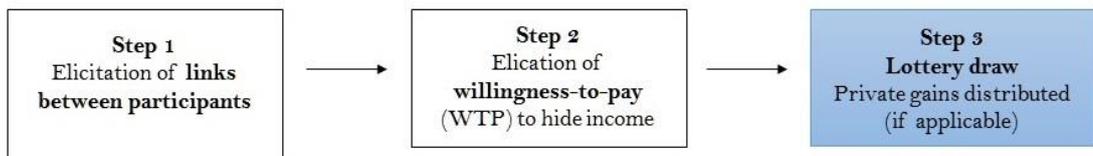
1. Timeline: the three phases of the experiment



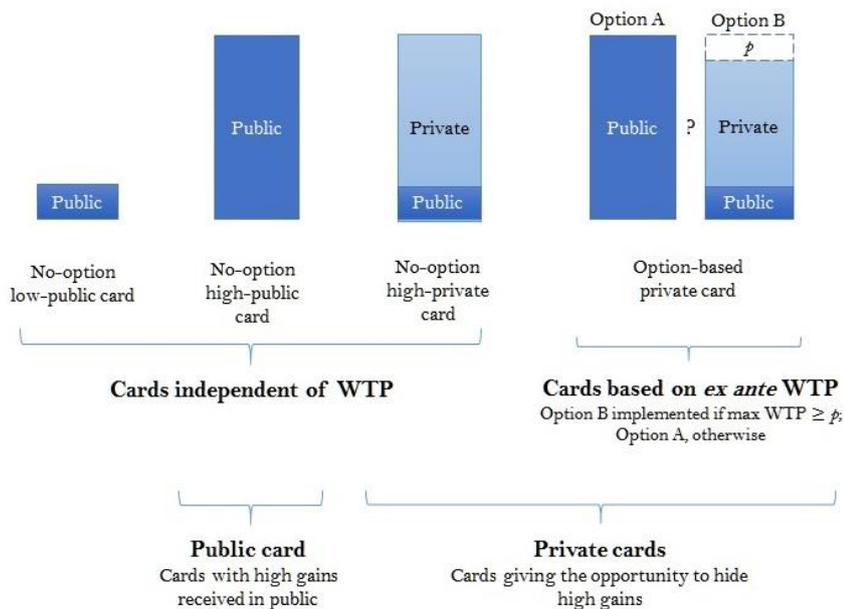
2. The three stages of a lab session



3. The three steps of a private interview



4. Cards in the lottery box



PROJECT IDENTITY

PROJECT NAME	NOPOOR – Enhancing Knowledge for Renewed Policies against Poverty
COORDINATOR	Institut de Recherche pour le Développement, Paris, France
CONSORTIUM	CDD The Ghana Center for Democratic Development – Accra, Ghana CDE Centre for Development Economics – Delhi, India CNRS (India Unit) Centre de Sciences Humaines – New Delhi, India CRES Consortium pour la Recherche Économique et Sociale – Dakar, Senegal GIGA German Institute of Global and Area Studies – Hamburg, Germany GRADE Grupo de Análisis para el Desarrollo – Lima, Peru IfW Kiel Institute for the World Economy – Kiel, Germany IRD Institut de Recherche pour le Développement – Paris, France ITESM Instituto Tecnológico y de Estudios Superiores de Monterrey – Monterrey, Mexico LISER Luxemburg Institute of Socio-Economic Research – Esch-sur-Alzette, Luxemburg OIKODROM - The Vienna Institute for Urban Sustainability – Vienna, Austria UA-CEE Université d'Antananarivo – Antananarivo, Madagascar UAM Universidad Autónoma de Madrid – Madrid, Spain UCHILE Universidad de Chile – Santiago de Chile, Chile UCT–SALDRU University of Cape Town – Cape Town, South Africa UFRJ Universidade Federal do Rio de Janeiro – Rio de Janeiro, Brazil UNAMUR Université de Namur – Namur, Belgium UOXF-CSAE University of Oxford, Centre for the Study of African Economies – Oxford, United Kingdom VASS Vietnamese Academy of Social Sciences – Hanoi, Vietnam
FUNDING SCHEME	FP7 Framework Programme for Research of the European Union –SSH.2011.4.1-1: Tackling poverty in a development context, Collaborative project/Specific International Cooperation Action. Grant Agreement No. 290752
DURATION	April 2012 – September 2017 (66 months)
BUDGET	EU contribution: 8 000 000 €
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The views expressed in this paper are those of the authors and do not necessarily represent the views of the European Commission.

