THE RISK OF POLYGAMY AND WIVES' SAVING BEHAVIOR

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In a polygamous society, all monogamous women are potentially at risk of polygamy as their husband may decide to take a second wife. This study focuses on how the risk of transition from a monogamous to a polygamous union affects the decisions of women in terms of savings.

INTRODUCTION

Polygamy is widespread in many developing countries, and although it has been declining since the 1970s, it remains persistent especially in sub-Saharan Africa with an overall prevalence of polygamy of 28 percent. Socio-anthropological research suggests that the arrival of a second wife is mostly viewed by women in a monogamous union as a threat, and this fear is substantiated by the observed negative correlation between polygamy and women's health. In 2006, according to the data used in the study, 38 percent of Senegalese married women aged 15 to 60 are in a polygamous union.

Socio-anthropological research suggests that the arrival of a second wife is mostly viewed by women in a monogamous union as a threat (Antoine 2002). This threat may be exploited by the husband to monitor his wife, who has in general no say in this decision. The extensive literature review provided by Bove and Valeggia (2009) substantiates this fear since it shows a negative correlation between polygamy and women's health.

However, the economic literature is silent on the potential impact of the anticipation of polygamy on the allocation of resources within households. In particular, no paper so far has investigated the strategies that women in monogamous unions may implement in order to avoid the arrival of a cowife or to protect themselves against such an event. Only rare qualitative evidence of such strategic behaviors is provided by demographers: Antoine (2002) mentions one of these strategies of monogamous wives consisting of not sharing their income with their husband and driving him to spend more in order to decrease his saving capacity and impede the arrival of a cowife.

Besides, several works have shown that spouses in developing countries do not behave cooperatively, especially in the presence of asymmetries of information, and that spouses may have conflicting views on the use of household income. Polygamy is of particular interest since it is expected to exacerbate both issues.

i. **Polygamy is a source of asymmetries of information between spouses.** There seems to be a consensus about the fact that men have the final say on whether to take a second wife. Husbands thus have private information on the prospect and date of arrival of a cowife in the household.

ii. **Polygamy may give rise to opposite incentives to save for husbands and wives.** Interestingly, in Senegal, husbands and wives pool neither their income nor their savings and men are expected to provide for their household while women are not.

The arrival of a second wife represents **a potential negative income shock for monogamous wives**, who may then have an incentive to increase their precautionary savings. The arrival of a cowife may imply a decrease in the household per capita income and consumption level, especially if she is accompanied by children from a former union. In addition, the cohabitation of cowives may be a source of conflict. When faced with the arrival of a cowife, **women have an outside option, which is divorce**. Since this option is costly, wives have further incentives to increase their precautionary savings.

However, women may also want **to protect their own savings from being seized by their husbands**, as they could be used to **finance the cost of marrying a second wife** which is high in Senegal (dowry, wedding ceremony). It is thus important to investigate separately savings held at home, more likely to be seized by the husband, and more secured savings held out of home, in informal (ROSCAS) or formal institutions (banks).

<div style="background:teal;color:white;padding:8px;font-weight:bold">EVIDENCE AND ANALYSIS</div>

The main result of the study shows that the risk of polygamy has a **positive impact on wife savings. However, this effect is only observed for savings entrusted to formal or informal institutions, as opposed to savings kept at home** (Table 1)**.** Moreover, the authors find that **this is true especially for women living in the poorest households**.

Table 1: Effect of the estimated risk of polygamy on savings of monogamous women (N=741 unions)

	Saving stocks (in log)			Has savings (dummy)		
	Total	Institutions	At home	Total	Institutions	At home
Estimated risk of polygamy	14.649* (8.070)	15.756** (7.894)	-2.399 (4.349)	1.665* (0.778)	1.767** (0.754)	-0.070 (0.459)

*Source: Boltz and Chort (2016). Bootstrapped (300 replications) standard errors in parentheses. Union fixed-effects. Controls included: time, time squared, dummies for the deceased father of each spouse, household size, relative cell size, share of dependents, all step 1 controls interacted with time (see Boltz and Chort, 2016). *** p<.01 ** p<.05 * p<.10*

Further results show that **household food expenditures decrease with the risk of polygamy**, suggesting a possible reallocation of women's resources from food consumption to savings. In addition, women facing a larger increase in their risk of polygamy spend **more on the education of their children**, but this increase in education expenditures is exclusively funded by a higher contribution of their husband, while their own contribution decreases.

Women are also found to **transfer more to their social networks**, suggestive of a strategy to invest in their social network as a safety net in case of divorce.

Besides, the risk of polygamy is not found to affect women's labor market participation. By contrast, the risk of polygamy is positively correlated with monogamous husbands' labor market participation and income, consistent with an accumulation strategy to afford a second wife.

POLICY IMPLICATIONS AND RECOMMENDATIONS

The results of the study suggest that **the risk of polygamy leads monogamous wives to engage in self-protective strategies, by investing in assets that are out of the reach of their husband, in their children, and in their social networks**.

Hence, the study provides strong evidence that in non-nuclear households in developing countries spouses may act non cooperatively and invest in strategies aimed at keeping their resources out of the reach of other household members.

More specifically, this article contributes to a better understanding of how living in a context where polygamy exists shapes women's saving and resource allocation decisions. This is crucial to being able to design adequate and well-targeted policies aimed at developing social protection for vulnerable socioeconomic groups, in particular women.

RESEARCH PARAMETERS

The data used in this analysis come from an original individual panel data from a nationally representative survey (*Enquête Pauvreté et Structure Familiale* (PSF)) conducted in 2006-2007 and 2010-2012 (see De Vreyer et al., 2008). The data are unique, and particularly suitable for this analysis. Indeed, while survey data in the developing world generally collect information on savings at the household level, the PSF data provide information at each survey date on the stock of savings of each household member, which allows to focus on wives' saving and resource allocation decisions.

The authors implement a **two-step estimation strategy**. In the first step, they obtain for each union the predicted risk of polygamy with a **duration model**: they exploit the difference in the transition patterns over time from monogamy to polygamy of women married to a man whose father is polygamous and women whose father-in-law is monogamous. The polygamy of the father is found to influence the behavior of the son, and those unions are characterized by a more rapid transition to polygamy (Figure 1).

Figure 1: Estimated probability of being still monogamous ("survival function") depending on marriage duration and husband's father being polygamous.
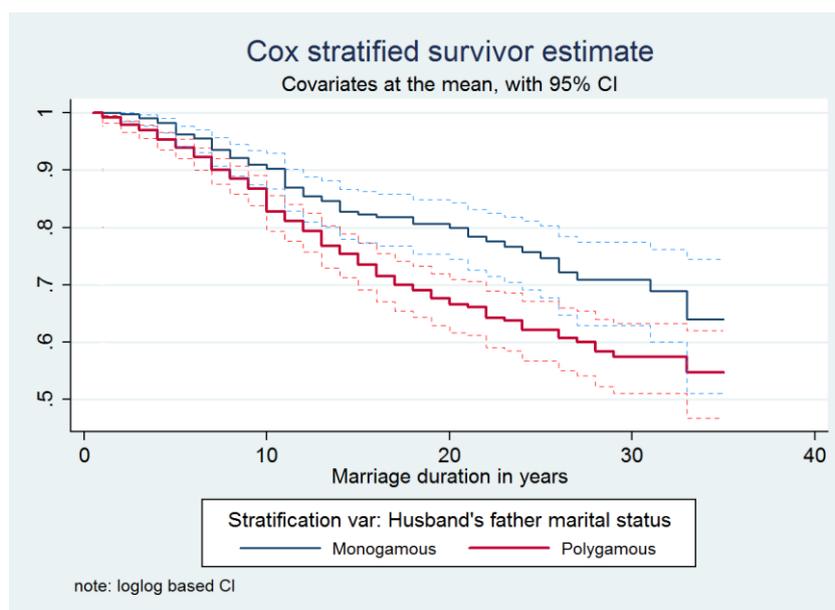
Second, the authors **estimate the effect of a variation in the estimated risk of polygamy on saving behaviors of monogamous women and exploit the longitudinal structure of the data by including union fixed-effects**. The identification of a causal impact of the risk of polygamy on savings in this second step relies on the assumption that the polygamy of the husband's father does not affect the variation of saving behaviors over time other than through the risk of polygamy.[1]

FURTHER READINGS

Boltz Marie, Chort Isabelle, 2017. The risk of polygamy and wives' saving behavior, *The World Bank Economic Review*, forthcoming (doi:10.1093/wber/lhw054)

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[1] Potential violations of this assumption caused by differential inheritance rules across groups or polygamy of the husband's father partly capturing household wealth are investigated and ruled out in the paper.

PROJECT NAME NOPOOR – Enhancing Knowledge for Renewed Policies against Poverty

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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 Èconomique 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
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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

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