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Extended Abstract proposal

Family Structure, Poverty And Labor Market Participation

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Abstract : This paper explores the effects of family structure and family poverty on labor market participation in Cameroon. The third Cameroonian household survey is used to estimate, from a probit model, the labor market participation of the householder. The results show that: (i) poverty, belonging to a nuclear family or being widowed/divorced decreases the probability of being unemployed while household size increases this probability; (ii) poverty, belonging to a nuclear family or being widowed/divorced increases the probability of working in the informal sector, while belonging to a larger household or to a monogamous or polygamous marriage decreases that probability; (iii) results on the formal sector are the opposite of those of (ii). The main conclusions are that: the solidarity mechanisms within the family reduce pressure in job search and the government should act on supporting informal activities with regard to the endogenous relationship between labor market participation and household poverty.

1.Introduction

Salary is the main criterion for work-leisure arbitration based on neoclassical labor supply analysis (Killingswoth, 1983). However, in line with the new consumer theory (Becker, 1965; Lancaster, 1966), the economic analysis of family behavior implies taking into account the family structure in the household analysis of adult labor supply behaviors, giving rise to a collective approach to household labor supply (Clark, Couprie, & Sofer, 2004). Such an approach leads to a new variant of labor supply analysis, since the utility of an individual is now conditioned, inter alia, by the family structure to which he belongs. Taking into account the family structure suggests that any parent wellbeing is mainly a function of his or her consumption, the utility of his children and that of his or her companionship as a couple should be consider as important aspects of labor supply (P.-A. Chiappori & Weiss, 2007; Browning, Chiappori, & Weiss, 2014). Living together means sharing many goods and services consumption, often resulting in consumption savings and income pooling (P. Chiappori, 1992; Blundell & Macurdy, 1999).

The African labor market is categorized by three main sectors: public, private formal and private informal (Ningaye & Talla Fokam, 2014). The African informal sector employs about 60% to 90% of the active labor force (Nguimkeu, 2014), with the remainder going to formal, public and private jobs combined. In Cameroon specifically, the unemployment rate hovers around 5.6% (ILO unemployed and discouraged unemployed) and about 90% of those who have a job work in the informal sector. There is a disparity in the employment rate between men and women: it is 71.7% for the first, against 61.4% for the second. Although the average age of employed persons where 33 years old (in 2010), 39.6% of children between the ages of 10 and 17 are employed (National Institute of Statistics, 2011). In addition, the poverty rate declined only 2.4 percentage points (from 39.9% to 37.5%) between 2007 and 2014 while the minimum per month wage rose from 28.216 FCFA (48.34USD) to 36.270 FCFA (62.14 USD). Regarding household characteristics, Ngeh Tingum (2016) shows a very significant effect of marital status on the choice of sector of activity, the size of the household being not always significant for all sectors. Concerning the income of individuals (in terms of poverty), there is a negative effect of poverty on the exercise of activities in the informal sector (Tchakounté Njoda & Mbam, 2016).

The purpose of this paper is to analyze the joint effects of family structure and poverty on labor market participation. The question is how income, analyzed from an indicator of income poverty, as well as family structure determines the choice of sector of activity or non-activity, in the case of Cameroon. A structural model of labor market participation is formulated and estimated to explain the effects of family structure and income poverty on occupational choices.

2.Methodology

Model specification

From Becker (1965), Chiappori & Weiss (2007), Browning et al. (2014), Chiappori (1992), Blundell et Macurdy (1999), we formulated a Family labor supply equation from income pooling and unique utility assumptions:

$\mathcal{L} = \mathcal{L}(w_1, w_2, \ldots, w_n, w_1, w_2, \ldots, w_m, y_1, y_2, \ldots, y_n, y_1, y_2, \ldots, y_m, X_1, X_2, \ldots, X_n, X_1, X_2, \ldots, X_m)$ **(1)**

Where w, y, and X are respectively wage, non-salary income and characters of each of the n spouses and m jobless or working extended family members.

According to Van Soest (1995) and Hoynes (1996) individuals choose to participate in the labor market if the total household income (wage and non-wage income of all family members) does not allow the family to attain a minimum standard of living. Let *P*, the poverty threshold be that minimum standard of living and $\mathcal{L}^*$ a vector of three discrete choices participation modalities for each individual (unemployed, formal sector, informal sector), *I* the whole family income, X_F a vector of family structure characters and X_i a vector of individual i characters: for an individual i, $\mathcal{L}_i^* = \mathcal{L}(I, X_i, X_F)$ **(2)** where $I = \sum_{j=1}^{n}(w_j + y_j) + \sum_{h=1}^{m}(w_h + y_h)$, $X_F = (Ma, Fc, H^2)$ and $X_i = (Res, Gen, A, Ed, Prof, Dis)$

The structural model equation form is therefore given by:

$\mathcal{L}_i^* = \beta_1 I + \beta_2 Ma + \beta_3 Fc + \beta_4 H^2 + X_i \beta_i + \varepsilon$ **(3)** with $\beta_i = \begin{pmatrix} \beta_5 \\ \vdots \\ \beta_{10} \end{pmatrix}$ and ε an error term that follows a normal distribution. According to family *I* Labor market participation decision is made regarding $I \geq P$ or not. That is, when $I \geq P$ the family is non-poor, and when $I < P$ the family is poor. P is therefore a dichotomized variable from income (I) so that equation **(3)** become $\mathcal{L}_i^* = \beta_1 P + \beta_2 Ma + \beta_3 Fc + \beta_4 H^2 + X_i \beta_i + \varepsilon$ **(4)**. In Cameroon, monetary poverty is a function of land (*L*), Marital status (*Ma*), education (*Ed*), gender (Gen) , age (*A*), and place of residence

(*Res*) (Fambon, 2014, 2017; Ndifor, 2016): $P = \theta_1 L + \theta_2 Ma + \theta_3 R + \theta_4 G + \theta_5 A + \theta_6 Ed + \varepsilon_p$ **(5)**.

Estimation strategy

The structural model equation (15) is estimated from a multinomial probit. This makes it possible to overcome a possible problem of irrelevant alternatives that would arise from the use of a multinomial logit. However, because of the potentially endogenous nature of the dichotomous variable of poverty (P), the latter will be previously estimated from a simple probit and then introduced into the estimation of the structural equation in the form of predicted probabilities. The indicator of income poverty is given by the database. It is constructed from the total consumption expenditure per adult equivalent of the household and the poverty line from the basic needs cost method Ravallion & Bidani (1994).

3.Data

The data processed are drawn from the third Cameroonian household survey (ECAM3) from 2007. The survey covered 11,391 households. We observe specifically the behavior of each householder (variables specification and distribution on the full paper).

4.Main results

According to the labor market participation defined in terms of unemployed, informal sector and formal sector, the directly observable results are: (i) household poverty, belonging to a nuclear family (parents and children) or being widowed or divorced decreases the probability of being unemployed while household size increases this probability; (ii) household poverty, belonging to a nuclear family or being widowed or divorced increases the probability of working in the informal sector, while belonging to a larger household or to a monogamous or polygamous marriage decreases probability of working in the informal sector; (iii) household poverty, being widowed or divorced decreases the probability of working in the formal sector while the probability of belonging to a larger household or a monogamous or polygamous marriage increases the probability of working in the household. formal sector.

Key variables result from multinomialprobit*

	Marginal effects on Labor market participation		
Explanatory variables	**Unemployed**	**Informal**	**formal**
Poverty	**-0.2470212*** **	**0.6340667*** **	**-0.3870455*** **
	(0.0519724)	(0.0725806)	(0.0599817)
Family composition			
Mono-parental	-0.0153704	0.0037836	0.0115868
	(0.0096135)	(0.0161858)	(0.0148741)
Nuclear	**-0.0256892*** **	**0.0284414***	-0.0027522
	(0.009099)	(0.0146502)	(0.01252)
Other	-0.010071	0.0113977	-0.0013267
	(0.0082227)	(0.0132307)	(0.0117263)
Marital Status			
Monog. marriage	0.0005826	**-0.0376352*** **	**0.0370526*** **
	(0.0089489)	(0.0133987)	(0.0110008)
Polyg. marriage	0.0093904	**-0.0564082*** **	**0.0470178** **
	(0.0155379)	(0.0214335)	(0.0182245)
Widow(er)/Divorced	**-0.0227579** **	**0.0493156*** **	**-0.0265577** **
	(0.008927)	(0.0140683)	(0.0118461)
(Household size)^2	**0.0001059** **	**-0.00002557*** **	**0.0001499** **
	(0.0000444)	(0.0000785)	(0.00006)

Notes: Robust Standard errors in brackets. Significance at 1%:***; 5%:*; and 10%:*.
* For control variables, that is, vector X_i, see the full paper

Source: Author

The main conclusions are that: (i) solidarity mechanisms within the family reduce the pressure in the job seeking; (ii) government should directly act to support and help to formalize the informal sector with regard to the endogenous relationship between participation in the labor market and household poverty.