

Subjective Perception of Poverty in Urban Sub-Saharan Africa

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Motivation

- ☞ Unanimous recognition of the multidimensional character of poverty.
- ☞ In practice (in the field) → no change in the way poverty is defined or monitored
- ☞ Policy implications of this statement have not yet been considered.

Approach of poverty

- Kanbur and Squire (1999) :
 - « *First, broadening the definition of poverty does not change significantly who is counted as poor ... »*
 - The one-dimensional vision implicit in the monetary approach is still prevailing (Cf. PRSPs).
- Laderchi, Saith and Stewart (2003): different definitions /approaches have different implications for policy and for targeting.

Questions and objective

☞ In poor African countries, can poverty be reduced to a unique observable scale or does it have many dimensions?

→ a "hard core" of the poor easily identified

→ or, on the contrary, various forms of poverty, which only partially overlap & call for differentiated policies?

☞ Focus on the subjective approach (*Subjective Economic Well-Being : SEWB*) to explore empirically the multiple dimension of poverty

Gradual widening of the concept of poverty

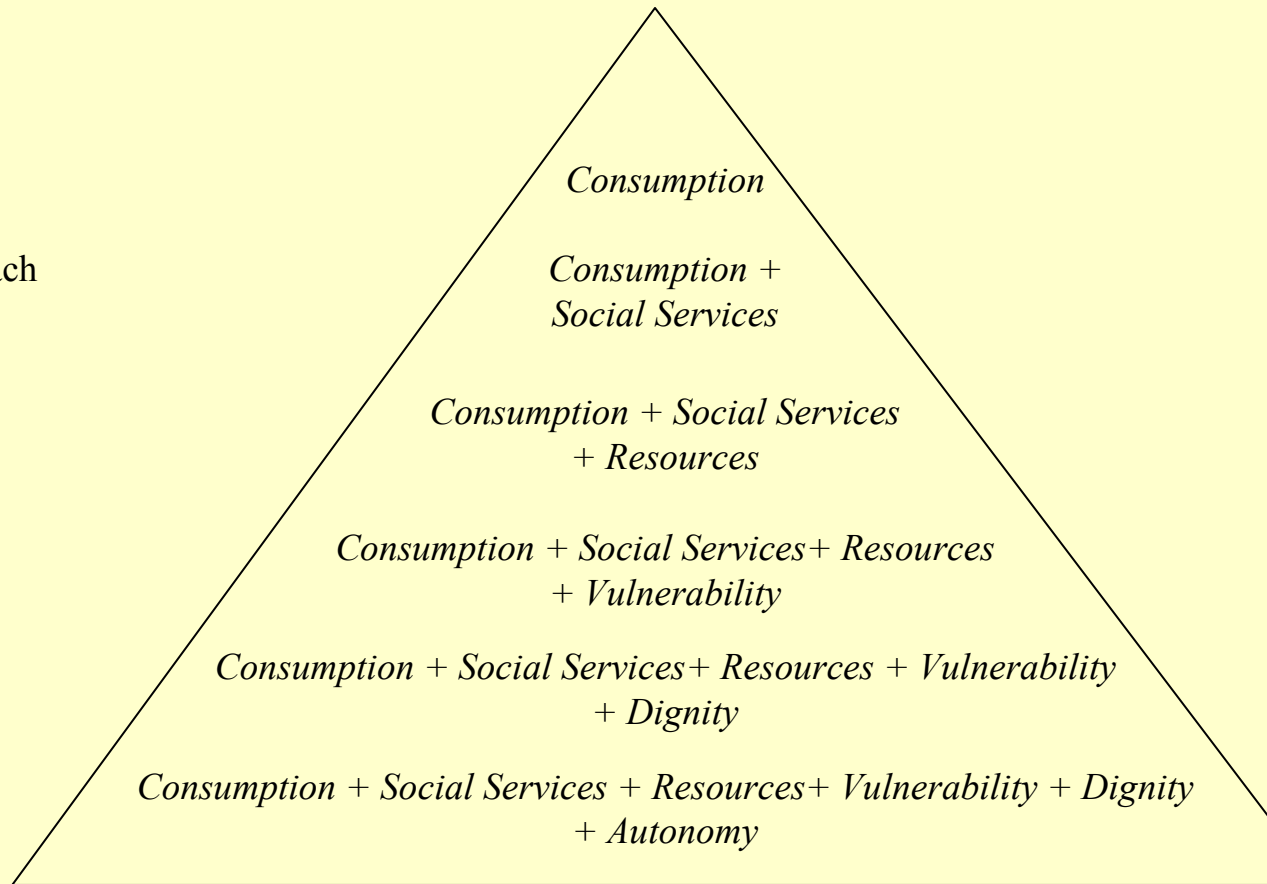
Up to 1970s
Mid '70s - mid 80s
Essential Needs approach

From mid '80s
Capability and
opportunity approach

(Rawls and A. Sen)



World Development
Report on Poverty,
World Bank, 2000



Source : from Killick et alii, (2000).

Subjective versus objective approach of poverty

At the junction of research on happiness and on poverty :

→ New wave of empirical research on developing countries on the thematic of subjective well-being

Some empirical works:

- on Nepal (Pradhan and Ravallion (& Jamaica; 1998) ; Fafchamps, Shilpi (2003)
- on Mexico (Rojas and Fuentes, 2001 and Rojas, 2002)
- on South Africa (Kingdon and Knight, 2003, 2004)
- on Peru (Herrera (2002); Graham and Pettinato (2003))
- on Madagascar (Lokshin, Umapathi, Paternostro 2003;
Razafindrakoto, Roubaud (2000, 2003)

Common issues:

- Factors behind this notion of subjective well-being?
- robustness, consistency of subjective approach to define and analyse the phenomenon of poverty

We add to these issues → Is the idea that income level matters first (in priority) in poor countries justified?

Data and characteristics of the countries studied

- Data from the *1-2-3 Survey*, a poverty monitoring tool (grafted surveys).
- Drawing on previous experiments in Madagascar, we specially designed these household surveys.
- They were simultaneously carried out with the national statistical institutes in seven West African capitals (Abidjan, Bamako, Cotonou, Dakar, Lomé, Ouagadougou and Niamey) in 2001 and 2002. An eighth identical survey was carried out in the Madagascan capital in 2003.
- In total, nearly 35,000 adults aged 18 and over (around 20 500 households) were surveyed in the eight capitals.

Main characteristics of the countries (cities) studied

	Benin	Burkina Faso	Côte d'Ivoire	Mada-gascar	Mali	Niger	Senegal	Togo
Income and Poverty								
GNI/capita (\$ PPP2000)	980	970	1 500	820	780	740	1 480	1 410
P ₀ (1\$PPP)	n.a.	61,2%	12,3%	49,1%	72,8%	61,4%	26,3%	n.a.
Growth rate (annual)								
GDP (2001)	5,0%	5,8%	0,1%	-12,7%	1,5%	7,6%	5,6%	2,7%
GDP (1995/2001)	5,1%	4,9%	3,4%	3,9%	5,0%	3,5%	5,3%	3,1%
Inflation rate (annual)								
PCI (2001)	3,9%	4,9%	2,8%	15,8%	5,1%	2,6%	2,3%	3,9%
PCI (1996/2001)	3,6%	2,2%	3,0%	10,0%	1,3%	2,3%	1,6%	2,4%
	Cotonou	Ouaga-dougou	Abidjan	Antana-narivo	Bamako	Niamey	Dakar	Lomé
Socio-demographic								
Population ('000)	809	856	2 787	1 305	1 143	576	1 901	784
Household size	4,6	6,5	4,5	4,6	6	5,7	7,4	3,8
Employment								
Unemployment rate	5,5%	15,4%	13,6%	7,5%	7,0%	11,7%	11,7%	8,2%
Underemployment rate	15,5%	12,3%	15,3%	24,0%	19,2%	19,1%	20,0%	18,7%
Income								
HH income/capita	33,6	24,9	52,7	21,5	30,6	25,2	35,5	28,4
Gini (income/capita)	0,57	0,59	0,61	0,53	0,61	0,62	0,55	0,61
Relative poverty rate	21,7%	26,4%	22,6%	20,5%	25,3%	27,3%	23,6%	23,1%

Various approaches of poverty

Four principal criteria:

- Monetary versus non-monetary
- Means versus results (or “capabilities” versus “functionings”)
- Objective versus subjective
- Absolute versus relative

→ **Seven approaches were considered**

(Four objective , three subjective)

Various objective approaches of poverty

- **Monetary approach** (income level (constant price, PPP))
- **Human capital** (ratio of the total number of years of education attained by every members of HH relative to the sum of the potential years of education they could have attained, given their age)

- In terms of living conditions

Stocks → captures permanent income component (ends but also means)

A cumulative score concerning the characteristics of house & some assets (means of transportation, means of communication or to access to media, other equipments) is then built up:

- type of dwellings (permanent structure ; number of persons per room ; access to running water; to electricity; fuel used; type of toilets);
- assets : means of locomotion (cars, bicycle, motorcycles); having radio, hi-fi, TV set; having a telephone, a computer; having a fridge, a cooker, a sewing machine, an electric fan

To take into account *relative importance of the different items* → weights derived from a factor analysis (multiple correspondence analysis). So, weights differ from one country to another.

- In terms of social capital

A Cumulative score on objective considerations (degree of participation in mutual aid activities with neighbours, in family/religious/political/professional associations; type of persons who can help the households in case of difficulties ; access to and keeping abreast of information)

→ Factor analysis for each country to obtain the weights attributed to each item

Why cumulative scores to measure poverty?

→ avoid the trap of imposing a unique way of life,

→ limits the uncertainties linked to measurement errors.

people considered as poor if → report the most difficult living conditions

<-> a cumulative lack of certain amenities, taken in the broad sense. 10

Various subjective approaches of poverty

– **Subjective economic well-being (SEWB)**

“Given the level of income of your HH, do you consider that:

- you live well
- you live more or less well
- you live moderately well and have to take care
- you live with difficulty

The first two modalities have been aggregated (low frequencies)

– **Non-satisfaction of basic needs**

Unlike the most usual approach (objective criteria) : level of satisfaction from a subjective point of view.

- First set of questions asking households what they regard as absolutely necessary out of a certain number of items.
 - relative weights of each item (percentage of HH who consider it as absolutely vital).
- Second set of questions : HH were asked for the level of satisfaction, in the light of their actual consumption → cumulative score

- **Financial poverty (financial affluence)**

→ compare the MIQ (minimum level of income necessary to “make ends meet” <-> aspiration) to the actual income level of the household. (Score = relative difference).

Relationships between these various approaches?

For each approach, we assign households to one of the three categories (poor; non poor nor rich; rich) in such a way that the % of respondents in each category = % of respondents in the corresponding group considering the SEWB approach).

Each approach	↔ SEWB approach
the « poor »	↔ the most deprived or those who encounter the most difficult living conditions (x %)
the « non poor, nor rich »	↔ those who manage to live moderately well if they take care
the « rich »	↔ those who do not have difficulties

→ Same percentage of poor for different approaches (x %)

Questions :

Do the poor combine the different symptoms?

Regardless the approach, are the group of poor more or less the same?

Relationships between these various approaches?

	% poor considering SEW and for each approach	Combine all types of poverty	At least one form of poverty
BENIN	37,2%	1,8%	85,1%
BURKINA	38,7%	1,7%	87,4%
COTE D'IVOIRE	43,5%	2,7%	90,6%
MADAGASCAR	52,7%	5,6%	95,4%
MALI	25,6%	0,2%	75,7%
NIGER	33,4%	0,9%	81,6%
SENEGAL	27,9%	0,4%	78,4%
TOGO	56,6%	7,8%	95,8%
Total	40,8%	2,8%	87,5%

*While none of the 7 groups of “poor” represent less than 25 % , more than 57 %
 → less than 3 % cumulate all the forms of poverty (except. Madagascar 6% and Togo 8%).
 → More than 75 per cent of the population falls into at least one category
 → present at least one form of poverty (more than 95% for Madagascar and Togo).*

Correlations between the various forms of poverty

	PS1	PS2	PS3	PO1	PO2	PO3	PO4
PS1. Subjective Economic Well-being (SEW)	1	0,48	0,22	0,31	0,25	0,09	0,36
PS2. Subjective satisfaction of basic needs		1	0,20	0,30	0,27	0,09	0,42
PS3. Subjective financial affluence			1	0,48	0,16	0,09	0,20
PO1. Monetary poverty				1	0,30	0,12	0,38
PO2. Human capital					1	0,13	0,49
PO3. Social capital						1	0,13
PO4. Objective living conditions							1

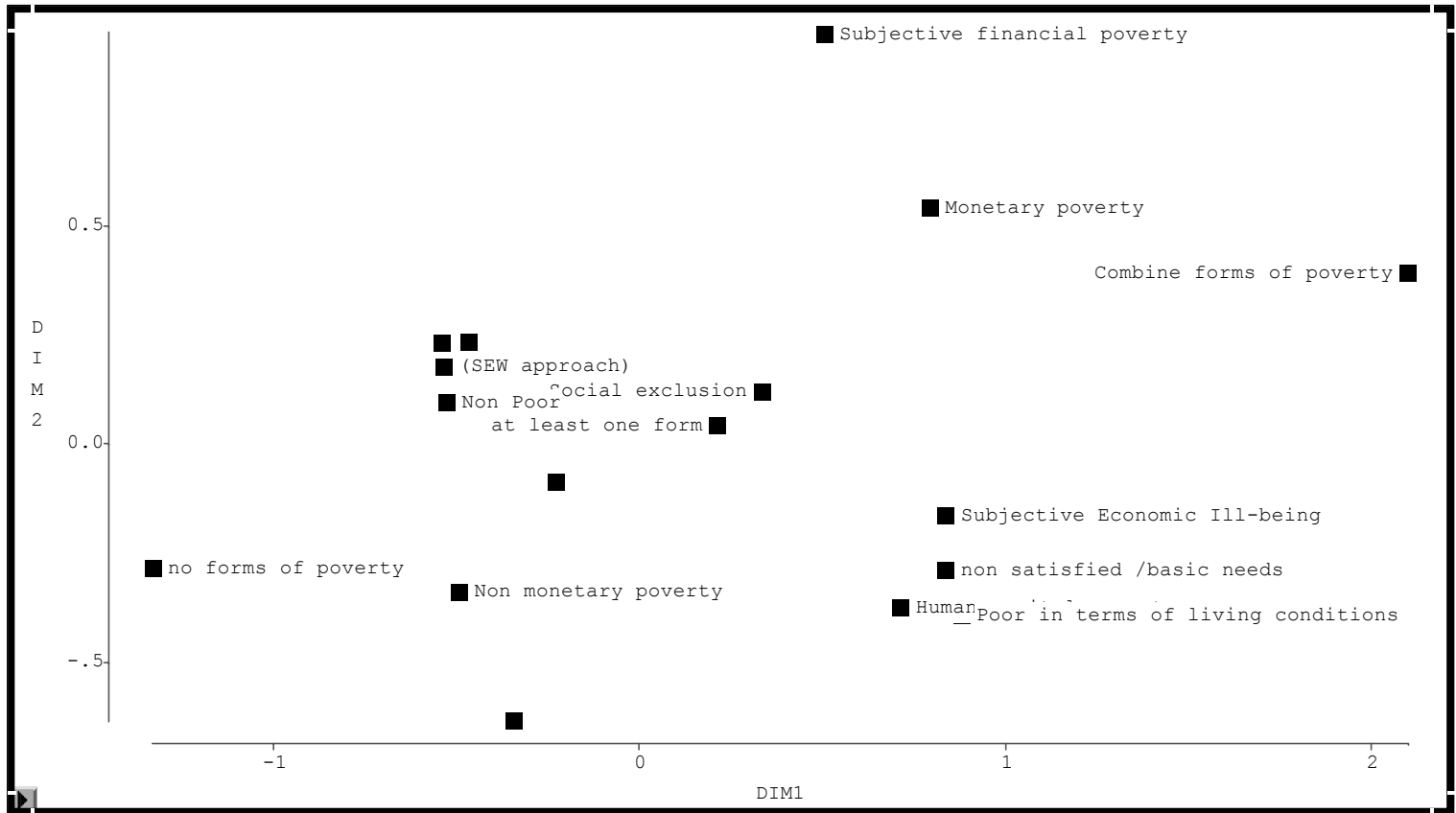
Source: 1-2-3 survey, PARSTAT/MADIO, authors' calculations.

- First, all the forms of poverty are positively (and significantly) correlated. all the indicators are indeed capturing a single phenomenon, i.e. poverty.
- The various categories of poverty do not overlap → underlines the multi-dimensional nature of the phenomenon.

Robustness → Results confirmed for each country one by one / using different thresholds

- The very low level of the correlations between the social capital approach and the others. Two explanations can be given:
 - the indicator needs to be refined
 - poor people (generally speaking) are not excluded from social life in the African societies

Diagram of the poverty space *(first factorial scatter from an MCA)*



Multiple-component analysis (MCA) for the "global poverty space" gives some particularly interesting results:

- the first factorial axis (33,5% of the total inertia), provides a clear opposition between poverty and non-poverty, in all its forms;
- the second axis (15% of the inertia) seems to differentiate financial dimensions of poverty (objective monetary poverty and subjective financial approach) from the others.

→ Among the multiple dimensions of poverty, financial and non-financial criteria seems to be the main distinguishing factor.

Why monetary approach cannot explain subjective perception?

- Focus on the subjective approach of poverty.
 - => subjective economic well-being
- Exploring the multiple dimensions
 - (one issue : absolute versus relative criteria)*

In fact, first results from an exploratory stage so that we can define some directions / orientations for future in-depth research.

- Different dimensions of welfare were examined to explain the answers to SEWB question

Factors explaining subjective economic well-being (ordered probit model)

	(1)	(2)	(3)
Log household income per capita	0.210 (24.61)***	0.176 (20.20)***	0.135 (13.70)***
Human capital (education) of the household	0.044 (4.06)***	0.036 (3.23)***	0.032 (2.68)***
Social capital (score)	-0.037 (0.90)	0.050 (1.16)	0.032 (0.71)
Living conditions & assets (score)	1.234 (32.74)***	1.010 (26.07)***	0.894 (21.49)***
<i>Health and insecurity</i>			
Satisfaction with health		0.725 (40.69)***	0.644 (33.84)***
Victims of violence		-0.077 (3.80)***	-0.052 (2.44)**
Insecurity in the neighborhood		-0.095 (4.99)***	-0.080 (3.98)***
<i>Job Characteristics</i>			
One or more members unemployed			-0.197 (7.53)***
Ratio of underemployed in the household			-0.095 (2.93)***
Instability of income			-0.543 (28.06)***
+ Dummy variables for each country			
Observations	20 469	20 469	18 586
Pseudo-R2	0.100	0.141	0.163 17

Factors explaining subjective economic well-being (ordered probit model)

	(5)	(6)	(7)
<i>Socio-demographic variables</i>			
Female (head of the household)	0.022 (0.91)	0.004 (0.16)	0.007 (0.28)
Log (age) Head of the household	-0.296 (8.49)***	-0.267 (7.51)***	-0.261 (7.32)***
Log (size of the household)	0.021 (1.11)	-0.050 (2.60)***	-0.051 (2.68)***
<i>Income aspirations</i>			
Log (MIQ per capita)	-0.053 (4.31)***	-0.084 (6.63)***	-0.082 (6.49)***
<i>Social comparisons / standard living in the city</i>			
consider themselves as very poor/households in the city		-1.225 (38.51)***	-1.225 (38.51)***
consider themselves as poor relative to households in the city		-0.526 (23.12)***	-0.528 (23.18)***
consider themselves as richer than average household in the city		0.343 (6.01)***	0.343 (6.01)***
<i>Inequality indicator (within survey cluster)</i>			
CV of living condition (house & assets) scores			-0.001 (2.81)***
+ Country dummy			
Pseudo-R2	0.166	0.206	0.207

Observations

13 000

13 000

13 000

Factors explaining subjective economic well-being (ordered probit model)

	BENIN	BURKINA	COTE D'IVOIRE	MADA- GASCAR	MALI	NIGER	SENE- GAL	TOGO
Log HH income per capita	0.231 (7.18)***	0.051 (1.57)	0.077 (2.38)**	0.283 (6.50)***	0.040 (1.28)	0.138 (4.28)***	0.055 (1.68)*	0.147 (4.29)***
Human capital	0.002 (0.06)	-0.026 (0.70)	-0.049 (1.38)	0.120 (3.21)***	0.045 (1.24)	-0.001 (0.02)	-0.026 (0.71)	-0.053 (1.44)
Social capital	-0.017 (0.14)	-0.178 (1.38)	0.213 (1.62)	0.151 (1.38)	0.009 (0.06)	0.059 (0.34)	-0.103 (0.80)	0.202 (1.23)
Living conditions & assets	0.748 (5.89)***	0.493 (3.61)***	0.202 (1.38)	0.966 (6.34)***	0.831 (6.17)***	0.331 (2.28)**	1.101 (7.25)***	0.627 (4.71)***
<i>Health and insecurity</i>								
Satisfaction with health	0.402 (8.02)***	0.539 (9.52)***	0.384 (6.93)***	0.385 (7.00)***	0.637 (10.80)***	0.450 (7.83)***	0.669 (11.21)***	0.443 (7.22)***
/victims of violence	-0.152 (2.57)**	-0.049 (0.84)	-0.034 (0.60)	-0.123 (1.63)	-0.126 (1.77)*	-0.036 (0.51)	-0.005 (0.08)	-0.024 (0.39)
Insecurity /neighbourhood	-0.129 (2.47)**	-0.055 (0.94)	0.020 (0.37)	-0.125 (1.93)*	0.045 (0.63)	-0.048 (0.76)	-0.141 (2.47)**	-0.055 (0.98)

Factors explaining subjective economic well-being (ordered probit model)

	BENIN	BURKINA	COTE D'IVOIRE	MADA- GASCAR	MALI	NIGER	SENEGAL	TOGO
<i>Job Characteristics</i>								
One or + members unemployed	-0.122 (1.22)	-0.126 (1.96)*	-0.237 (3.39)***	-0.312 (3.30)***	-0.038 (0.40)	-0.225 (2.98)***	-0.047 (0.72)	-0.169 (1.79)*
Ratio of unemployed in the HH	-0.190 (2.27)**	-0.009 (0.08)	-0.062 (0.64)	-0.283 (3.06)***	0.118 (1.18)	0.018 (0.19)	-0.123 (1.25)	-0.127 (1.36)
Instability of income	-0.352 (6.88)***	-0.400 (6.65)***	-0.591 (10.46)***	-0.073 (1.28)	-0.518 (8.20)***	-0.562 (9.61)***	-0.441 (7.26)***	-0.492 (8.64)**
<i>Socio-demographic variables</i>								
Female (head HH)	0.110 (1.89)*	-0.039 (0.45)	0.068 (0.99)	-0.067 (0.91)	-0.176 (1.72)*	0.044 (0.55)	-0.039 (0.63)	0.075 (1.16)
Log (age) Head of the HH	-0.362 (4.12)***	-0.165 (1.50)	-0.442 (4.21)***	-0.082 (0.83)	-0.259 (2.33)**	-0.329 (2.97)***	-0.234 (2.18)**	-0.426 (3.90)**
Log (size of the HH)	-0.018 (0.36)	0.014 (0.23)	-0.049 (0.91)	-0.138 (1.99)**	-0.141 (2.51)**	0.134 (2.51)**	-0.076 (1.42)	-0.119 (2.07)**

Factors explaining subjective economic well-being (ordered probit model)

	BENIN	BURKINA	COTE D'IVOIRE	MADA- GASCAR	MALI	NIGER	SENEGAL	TOGO
<i>Income aspirations</i>								
Log (MIQ per capita)	-0.085 (2.21)**	-0.148 (3.54)***	-0.078 (2.26)**	-0.220 (4.80)***	-0.110 (3.49)***	-0.005 (0.17)	-0.014 (0.44)	-0.160 (3.69)**
<i>Social comparisons / standard living in the city</i>								
<i>consider themselves as</i>								
- very poor/HH in the city	-1.386 (17.43)***	-1.345 (15.20)***	-0.996 (12.13)***	-1.875 (7.38)***	-1.202 (12.75)***	-0.912 (10.16)***	-0.972 (9.29)***	-1.430 (14.98)***
- poor relative to HH in the city	-0.597 (9.87)***	-0.525 (7.52)***	-0.372 (6.03)***	-1.342 (17.23)***	-0.456 (7.16)***	-0.259 (3.76)***	-0.416 (6.70)***	-0.490 (6.93)**
- richer than average HH (city)	0.260 (1.67)*	0.453 (2.56)**	0.301 (1.57)	0.660 (4.18)***	-0.072 (0.48)	0.511 (2.66)***	0.341 (2.47)**	0.170 (1.03)
<i>Inequality indicator (within survey cluster)</i>								
CV of living conditions (scores)	-0.003 (2.69)***	0.002 (1.11)	0.001 (0.93)	-0.007 (4.29)***	-0.001 (0.52)	-0.003 (1.85)*	-0.001 (0.91)	-0.000 (1.08)
Observations	2681	2242	2322	2450	2183	2215	2199	2290
Pseudo-R2	0.216	0.198	0.147	0.262	0.207	0.182	0.210	0.200

Conclusion

- ☞ Monetary approach is not sufficient
- ☞ Even in very poor countries, multiple dimension of poverty must be taken into account. → Policy implications
- ☞ Subjective approach → complementary approach
- ☞ Analysis of the factors which explain reported subjective well-being → meaningful results
 - ☞ Detailed analysis on :
 - cross-country comparisons
 - relative income effect (social comparisons / aspirations)