

South West Doctoral Training Partnership



CARI

UNIVERSITY

PRIFYSGOL



Dr Marco Pomati, Cardiff University

UoB, Poverty Research Methods Course 2019

## Outline

- The Consensual Approach
- Adaptive Preferences
- Exploring Consensus
- Implications for poverty analysis







• Recent Research Projects:

Measurement of material deprivation Subjective assessment of resources Malnutrition in Sub-Saharan Africa

• Teaching: Quantitative Methods for Social Scientists Sociology Social Policy



A step-change in quantitative social science skills

Funded by the Nuffield Foundation, ESRC and HEFCE





PRIFYSGOL

## The Consensual Approach

## The Consensual Approach

• Material Deprivation (direct measurement)

**Main Contributions:** 



- 1) How to define and select deprivations
- 2) How to detect deprivation allowing for individual choice

## Why material deprivation?

- Reflect the experiences of the poor (direct measurement)
- Reflect the society to which they are applied
- Have appropriate age-related standards
- Provide a clear justification for why these indicators have been chosen
- Are applicable to low, middle and high income countries
- Enable some level of international comparisons
- SDGs, Atkinson (2016) Review,

## **Sustainable Development Goal 1**

## Target 1.2

By 2030, reduce at least by half the proportion of men, women and children of all ages **living in poverty in all its dimensions according to national definitions** 

### Indicators

1.2.1 Proportion of population living below the national poverty line, by sex and age

**1.2.2 Proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions** 

## Townsend's theory of relative deprivation

• Individuals, families and groups in the population can be said to be **in poverty when they lack the** resources to obtain the types of diet, participate in the activities and have the living conditions and amenities which are customary, or at least widely encouraged or approved, in the society to which they belong" (1979, p 31)

### **TOWNSENDIAN CONCEPT of Poverty**

Those excluded from the minimum acceptable way of life in the Member State to which they belong (Council of European Union, 1985)



The household does not have for at least one ch	hild:
Some new clothes (enforced lack)	
Two pairs of shoes (enforced lack)	
Fresh fruits & vegetables daily (enforced lack)	
Meat, chicken, fish daily (enforced lack)	
Suitable books (enforced lack)	
Outdoor leisure equipment (enforced lack)	
Indoor games (enforced lack)	
Leisure activities (enforced lack)	
Celebrations (enforced lack)	
Inviting friends (enforced lack)	
School trips (enforced lack)	
Holiday (enforced lack)	
The household cannot afford:	
To avoid arrears	
To have adequate warmth in home (enforced l	lack)
To have (access to) a car (enforced lack)	
To replace worn-out furniture (enforced lack)	)
Internet (enforced lack)	

Source: EU-SILC 2014 cross-sectional data, authors'

## The Consensual Approach

• Material Deprivation (direct measurement)

#### Main Contributions:

1) How to define and select deprivations: The necessities of life

2) How to detect deprivation allowing for individual choice

## The necessities of life

#### Focus group discussions



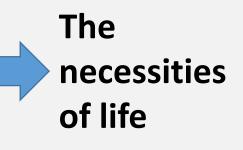
#### Nationally representative survey

Item	Essential	Desirable, but not essential	Neither	DK
QH1 Enough money to repair or replace any worn out furniture	1	2	3	8
QH2 Enough money to repair or replace broken electrical goods, e.g. a refrigerator	1	2	3	8
QH3 To be able to make regular savings for emergencies	1	2	3	8
QH4 To be able to replace broken pots and pans for cooking	1	2	3	8
QH5 Enough money to repair a leaking roof for the main living quarters	1	2	3	8
QH6 Have your own means of transportation (e.g. car, bike, motorcycle, etc)	1	2	3	8

## The Consensual Approach



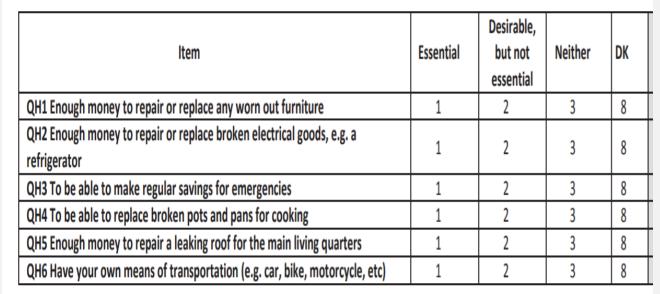
Item	Essential	Desirable, but not essential	Neither	DK
QH1 Enough money to repair or replace any worn out furniture	1	2	3	8
QH2 Enough money to repair or replace broken electrical goods, e.g. a refrigerator	1	2	3	8
QH3 To be able to make regular savings for emergencies	1	2	3	8
QH4 To be able to replace broken pots and pans for cooking	1	2	3	8
QH5 Enough money to repair a leaking roof for the main living quarters	1	2	3	8
QH6 Have your own means of transportation (e.g. car, bike, motorcycle, etc)	1	2	3	8



## Focus groups and surveys

 Walker (1987): in these survey people are 'asked to provide immediate responses to tightly worded questions about complex and sensitive issues to which few of them will previously have given much thought'





#### HOUSEHOLD ITEMS (relevant to all household members)

Please say whether you think each of the following is essential for <u>everyone to be able to afford in order for them to enjoy an acceptable standard of living</u> in Uganda today. If you think it is essential please say 'ESSENTIAL'. If you think it is desirable but not essential please say 'DESIRABLE'. If you think it is not essential and not desirable please say 'NEITHER'. So the three possible answers are 'ESSENTIAL', 'DESIRABLE' or 'NEITHER

ltem	Essential	Desirable, but not essential	Neither	DK
QH1 Enough money to repair or replace any worn out furniture	1	2	3	8
QH2 Enough money to repair or replace broken electrical goods, e.g. a refrigerator	1	2	3	8
QH3 To be able to make regular savings for emergencies	1	2	3	8
QH4 To be able to replace broken pots and pans for cooking	1	2	3	8
QH5 Enough money to repair a leaking roof for the main living quarters	1	2	3	8
QH6 Have your own means of transportation (e.g. car, bike, motorcycle, etc)	1	2	3	8

## The Consensual Approach

1) How to define and select deprivations:

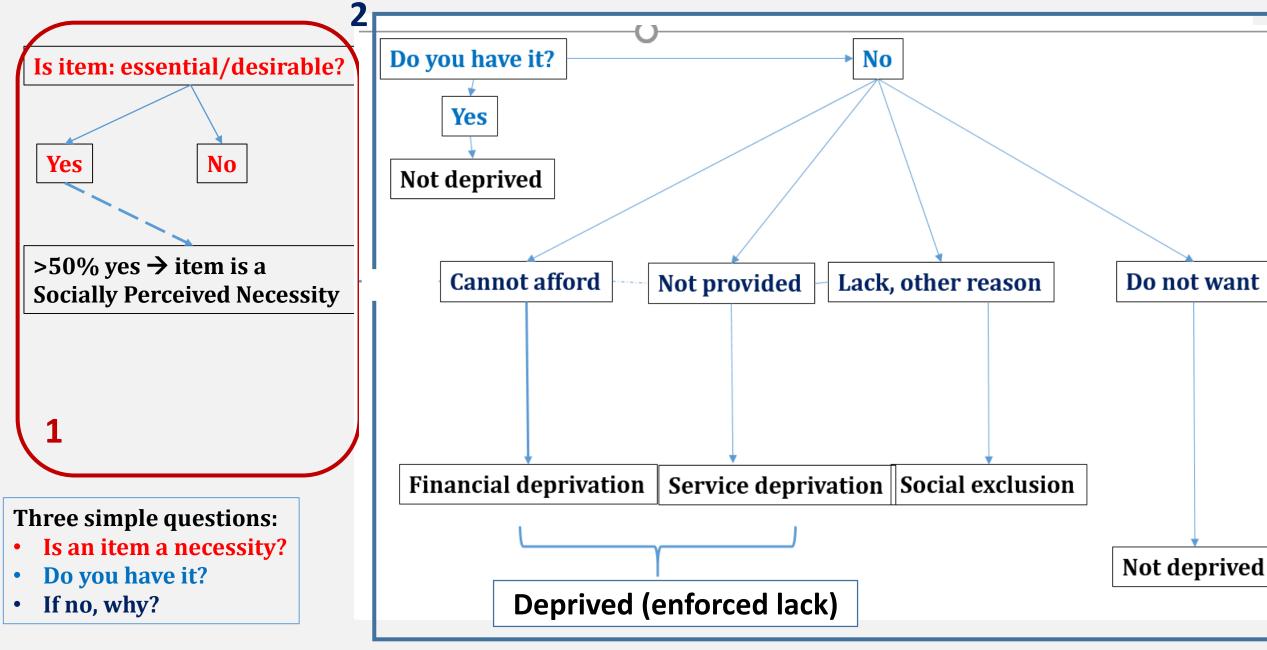


ltem	Essential	Desirable, but not essential	Neither	DK
QH1 Enough money to repair or replace any worn out furniture	1	2	3	8
QH2 Enough money to repair or replace broken electrical goods, e.g. a refrigerator	1	2	3	8
QH3 To be able to make regular savings for emergencies	1	2	3	8
QH4 To be able to replace broken pots and pans for cooking	1	2	3	8
QH5 Enough money to repair a leaking roof for the main living quarters	1	2	3	8
QH6 Have your own means of transportation (e.g. car, bike, motorcycle, etc)	1	2	3	8



2) How to detect deprivation allowing for individual choice **Enforced lack** 

Only those who lack "the necessities of life" through lack of income and resources are included among those seen as deprived



**Conceptual framework for the Consensual Approach** 

#### HOUSEHOLD ITEMS (relevant to all household members)

Please say whether you think each of the following is essential for everyone to be able to afford in order for them to enjoy an acceptable standard of living in Uganda today. If you think it is essential please say 'ESSENTIAL'. If you think it is desirable but not essential please say 'DESIRABLE'. If you think it is not essential and not desirable please say 'NEITHER'. So the three possible answers are 'ESSENTIAL', 'DESIRABLE' or 'NEITHER

		1				2				
ltem	E	ssential	Desirable, but not essential	Neither	DK	Have it	Don't have, can't afford	Don't have, don't want	Don't have, for another reason	DK/NA
QH1 Enough money to repair or replace any worn out furniture		1	2	3	8	1	2	3	4	8
QH2 Enough money to repair or replace broken electrical goods, e.g. a refrigerator		1	2	3	8	1	2	3	4	8
QH3 To be able to make regular savings for emergencies		1	2	3	8	1	2	3	4	8
QH4 To be able to replace broken pots and pans for cooking		1	2	3	8	1	2	3	4	8
QH5 Enough money to repair a leaking roof for the main living quarters		1	2	3	8	1	2	3	4	8
QH6 Have your own means of transportation (e.g. car, bike, motorcycle, etc)		1	2	3	8	1	2	3	4	8

#### **Countries where the Consensual Approach has been used:** Europe:

Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Rep, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Poland, Portugal, Romania, Slovakia, Spain, Sweden, UK

#### Africa:

Benin, South Africa, Uganda, [Liberia, Niger, Mali]

Asia:

Bangladesh, Hong Kong, Japan, South Korea

Oceania:

Australia, Tonga, Solomon Islands, Tuvalu, New Zealand

## Adaptive preferences

- Process that reduces the effects of a constant repeated stimulus
- The poor learn to take pleasure in small mercies and cut down their desires to avoid disappointment (Sen 1992)
- Can affect: Expectations, Aspirations, Desires, Happiness

## Adaptive preferences and poverty

'people's desires and preferences respond to their beliefs about norms and about their own opportunities.

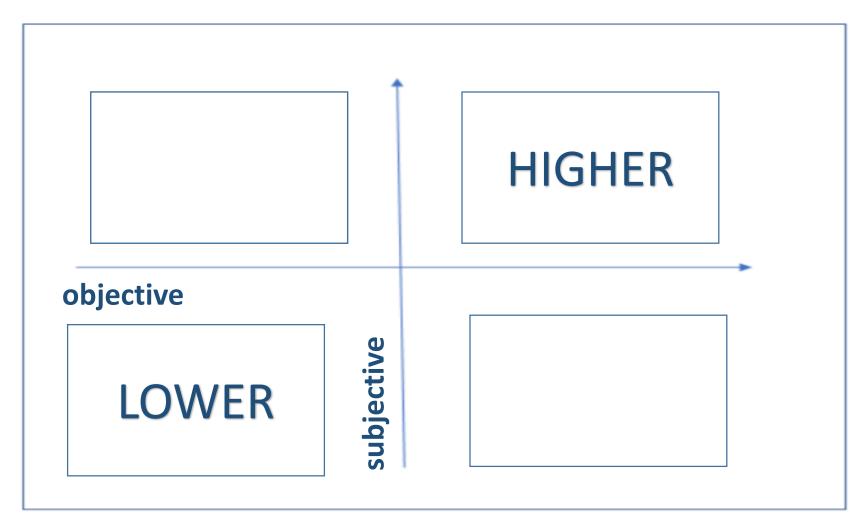
Thus people usually adjust their desires to reflect the level of their available possibilities....People from groups that have not, persistently, had access to education, or employment outside the home, may be slow to desire these things because they may not know what they are like or what they could possibly mean in lives like theirs' (Nussbaum 1999: 11).

## Possible implications for measuring poverty?

Group exercise

• How do you think this might affect the measurement of poverty when using the Consensual Approach?

## Adaptive preferences



In Patsios and Pomati (2018)

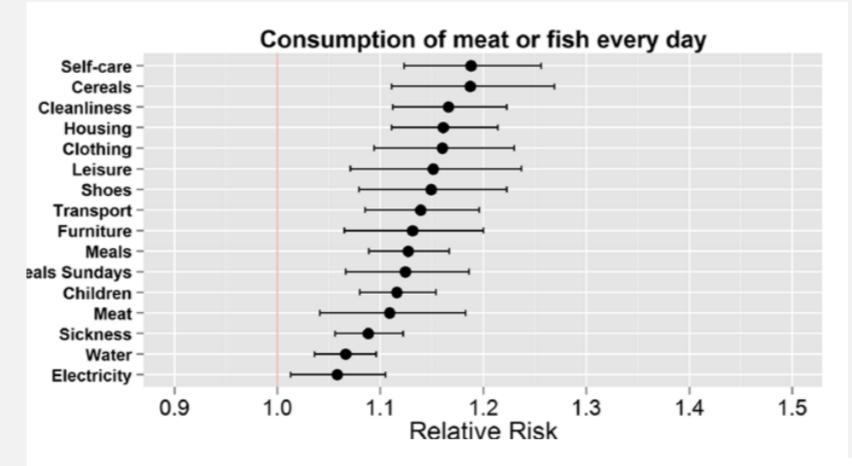
## Exploring group level consensus

• <u>**Relative risk</u>**: group endorsement differences</u>

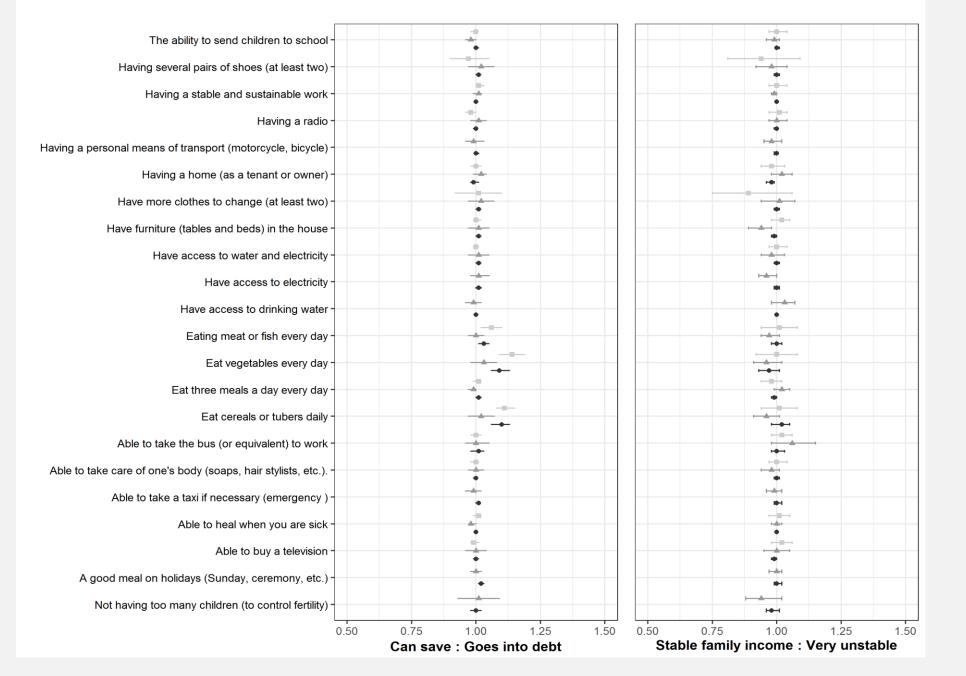
E.g. how much less likely are the poor to endorse certain items?

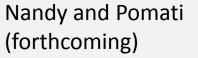
- <u>Absolute risk</u> : group endorsement
- E.g. What percentage of rich and poor endorse certain items?

# Are those without items less likely to endorse certain items?

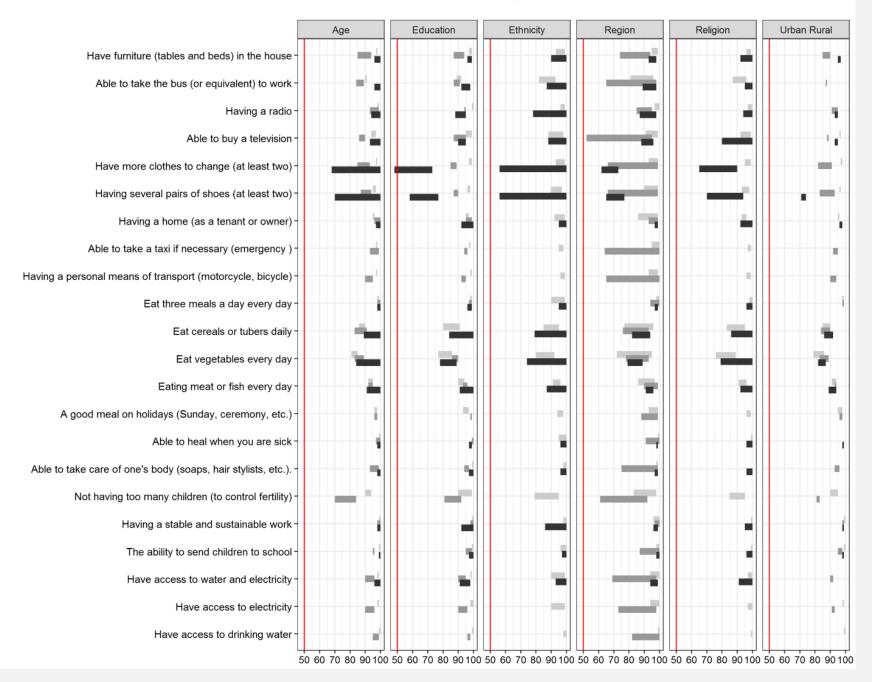


Benin 2006 - Nandy and Pomati (2015)





#### Liberia Mali Benin



Nandy and Pomati (forthcoming) **Table 6** Heat map of attitudes to items considered "essential" by respondent religion (%). (Color figure online)

	Traditional (Vodoun)	Other Traditional	Islam	Catholic	Protestant Methodist	Other Protestant	Celeste	Other Christian	Other Religion
Need to have access to drinking water	83	88	79	85	85	88	89	87	92
Need to take care of oneself when sick	82	89	80	85	85	87	89	85	90
Need to having a stable and long-term job	80	82	75	84	83	83	89	86	87
Need to be able to send children to school	78	79	71	81	84	85	86	82	90
Need to have access to electricity	77	69	70	78	80	80	85	81	90
Need to have three meals per day	77	85	64	75	74	79	80	80	80
Need to have a radio	72	70	62	72	71	74	77	75	83
Need to have a house	69	66	65	74	71	74	76	73	82
Need to have mode of transportation	67	71	63	69	67	72	70	72	69
Need to take of own body (soap, barber etc.)	65	59	61	69	68	71	74	68	73
Need to have a good meal on festivities/celebrations (Sunday, ceremony, etc.)	65	73	60	63	62	64	68	65	68
Need to have tables and beds	62	51	53	64	62	68	68	67	68
Need to have personal care products	61	56	54	65	62	65	68	65	68
Need to have a change of clothes (at least two)	63	55	51	63	62	66	67	66	63

Nandy and Pomati (2015)

Child items	Tonga	Uganda	UK
	Percenta	ge who can't	afford item
Three meals a day	8%	48%	1%
One meal with meat, fish or vegetarian equivalent daily	8%		3%
Enough beds for every child in the household	11%	75%	
Own room for children over 10 of different sexes		60%	11%
A suitable place to study or do homework <sup>2</sup>	10%	76%	5%
New properly fitting shoes <sup>1</sup>	12%	71%	4%
Some new not second-hand clothes	15%	63%	4%
All school uniform and equipment required <sup>3</sup>	6%	56%	
Participate in school trips and school events that costs money	11%	64%	8%
Celebration on special occasions	17%	70%	1%

<sup>1</sup> Uganda - Two pairs of shoes, <sup>2</sup> Uganda - Desk and chair for homework, <sup>3</sup> Uganda - All fees and uniform

valid	cted child deprivations which passed suitability, ity, reliability and additivity tests nda 2016/17	% don't have, can't afford	% essential
1	Own bed	74%	81%
2	Two pairs of properly fitting shoes	71%	79%
3	Presents for children once a year on special	70%	54%
	occasions		
4	Own blanket	66%	85%
5	Some new clothes	63%	70%
6	Books at home for their age	59%	71%
7	Three meals a day	48%	96%
8	A desk and chair for homework	45%	55%
9	Educational toys and games	44%	53%
10	Bus/taxi fare or other transport	41%	68%
11	To be able to participate in school trips	38%	69%
12	All fees, uniforms of correct size and equipment	34%	88%
13	A visit to the health facility when ill and all	33%	97%
	prescribed medication		
14	Toiletries to be able to wash everyday	29%	93%
15	Two sets of clothing	17%	94%
16	Own room for children over 10 of different sexes	17%	76%

 Table 6 "Heat map" providing for each item the proportion of children lacking the item in the country, Child population, National results, 2014

	Proteins	Fruits & vegetables	Indoor games	Shoes	Internet	Books	Friends	School trips	Outdoor equipment	Home warm	Clothes	Celebration	Leisure	Car	Furniture	Holidays	Arrears
Sweden	0.0	0.1	0.3	0.3	0.4	0.6	0.7	0.8	0.8	0.8	0.9	1.5	2.8	3.1	5.7	5.8	8.9
Finland	0.2	0.3	0.2	0.7	0.4	0.5	0.1	0.8	0.3	0.8	3.3	0.4	1.4	3.6	11.7	7.3	16.6
Denmark	0.7	0.5	0.8	2.3	0.5	2.7	1.5	1.4	2.3	2.3	1.9	1.4	3.4	5.2	14.5	9.1	10.1
Austria	2.0	0.6	1.2	1.1	1.1	1.2	3.5	2.7	3.1	4.6	1.9	1.8	10.0	7.0	15.5	17.7	11.0
Netherlands	2.5	0.6	0.4	3.9	0.2	0.5	1.1	1.6	1.6	2.9	1.6	1.9	6.2	6.7	25.3	15.7	9.0
Luxembourg	1.2	0.9	1.6	0.9	1.0	0.8	2.5	3.5	2.7	1.0	2.8	2.0	2.7	2.2	21.0	9.5	6.1
Slovenia	1.3	0.9	1.3	1.1	1.2	1.0	3.3	2.4	1.9	3.8	5.7	2.6	10.9	3.1	15.7	7.2	28.7
Spain	3.0	1.6	3.5	3.0	13.3	2.3	13.0	10.9	6.0	12.1	7.8	11.6	12.9	6.7	46.1	34.2	17.7
Germany	4.0	1.9	0.8	2.2	1.0	0.8	1.8	0.7	1.4	5.6	2.2	1.8	6.3	4.4	18.9	17.7	9.5
Malta	7.0	2.0	2.2	6.0	4.3	2.1	5.2	2.6	4.2	21.6	6.0	5.2	6.1	4.5	30.2	35.5	22.3
Cyprus	2.5	2.1	3.8	1.4	8.2	5.7	12.7	2.8	8.2	25.7	5.6	11.5	21.9	1.5	60.8	41.1	41.7
Belgium	2.5	2.2	2.5	3.6	3.7	4.4	5.9	3.8	4.0	4.9	8.2	5.8	9.1	7.6	18.5	19.5	12.2
Italy	5.9	2.6	5.6	3.0	10.8	7.8	7.5	9.7	6.1	18.3	8.6	7.3	14.0	2.3	39.0	30.0	20.9
France	2.4	2.8	1.1	5.4	2.0	1.2	2.6	4.8	1.8	5.4	8.9	5.5	6.5	2.9	28.1	11.9	14.9
Portugal	1.3	2.9	5.5	3.5	11.6	6.5	13.9	9.3	4.6	25.6	14.5	8.4	23.5	9.8	57.6	36.7	17.6
Ireland	3.6	3.1	1.4	6.7	5.2	1.0	3.4	3.3	3.4	10.1	12.4	3.2	7.1	6.8	28.8	53.8	25.9
Czech Republic	4.8	3.1	3.0	2.9	3.9	1.9	2.4	5.2	7.7	6.0	6.3	3.7	8.9	11.7	47.5	9.0	10.3
Poland	2.9	3.5	2.3	1.4	3.1	2.9	8.8	8.9	4.3	7.9	3.2	9.9	19.0	7.8	31.6	26.4	19.1
United Kingdom	3.1	3.9	1.4	2.2	4.6	1.0	7.2	3.5	5.6	10.1	3.6	2.3	6.3	10.7	32.7	35.4	18.2
EU-28	5.2	4.1	4.7	4.7	7.0	4.4	8.4	7.6	7.2	10.2	7.4	7.2	12.7	8.7	33.9	26.5	18.4
Croatia	6.3	4.6	5.9	3.2	4.9	7.2	7.6	8.1	6.2	9.3	5.3	5.7	9.2	7.5	32.9	29.8	36.0
Greece	9.4	5.6	4.2	0.6	8.7	7.4	14.5	22.1	10.4	31.1	1.8	19.5	16.3	8.7	57.4	42.3	54.5
Estonia	6.2	7.1	1.7	1.7	0.9	2.6	5.2	3.2	3.7	1.5	2.6	3.7	4.1	9.9	27.9	10.7	16.2
Lithuania	6.5	8.2	2.6	0.4	5.7	2.4	9.8	6.0	6.5	25.4	12.7	5.0	19.0	12.4	49.9	18.7	17.4
Slovakia	13.3	10.1	7.9	6.6	9.2	10.8	15.8	9.1	11.4	8.0	14.4	12.5	11.5	13.9	45.3	16.0	11.2
Latvia	8.6	10.3	9.3	12.2	8.3	11.4	11.6	7.8	17.2	18.1	24.7	10.5	16.7	24.1	57.9	28.4	32.4
Romania	21.9	14.9	42.5	27.8	36.9	24.5	40.0	40.3	55.8	15.3	26.4	33.2	60.5	45.0	67.2	61.5	36.5
Hungary	22.8	23.0	13.3	8.0	18.1	15.3	31.9	15.9	17.3	12.5	27.3	15.7	21.6	30.9	53.6	51.3	36.8
Bulgaria	43.2	40.9	38.9	49.9	27.3	43.9	41.9	43.0	52.8	40.6	36.4	32.7	53.1	30.5	72.6	55.0	44.9

Source: EU-SILC 2014 cross-sectional data, authors' computation

## Adaptive preferences and enforced lack (1)

- Are the poor more likely to say they don't have items because of "other reasons" (not resource-related)
- Guio et al. 2017 explored this with a multinomial regression model
- Reference category: Have item

Compared to: P(cannot afford) and P(other reasons (e.g. don't want))

#### Table 9: Nagelkerke pseudo R2, logistic regression, 2014

Other reasons versus have											
ltem	Age	Household income quintiles	National dummies	Full model							
Clothes	0.09	0.03	0.11	0.24							
Shoes	0.03	0.01	0.16	0.21							
Friends	0.07	0.02	0.06	0.16							
Leisure	0.1	0.05	0.1	0.27							
Pocket money	0.04	0.02	0.12	0.2							
Internet	0.3	0.07	0.07	0.48							
Furniture	0.01	0.02	0.41	0.41							
		Cannot afford versus ha	ve								
ltem	Age	Household income quintile	National dummies	Full model							
Clothes	0	0.15	0.13	0.32							

0.07

0.09

0.21

0.14

0.15

0.18

0.29

0.13

0.19

0.16

0.14

0.27

0.39

0.31

0.44

0.33

0.38

0.44

Shoes

Friends

Leisure

Internet

Furniture

Pocket money

0.01

0.01

0.01

0.05

0

0

\*Limited explanatory power of income when explaining other reasons for not having item.

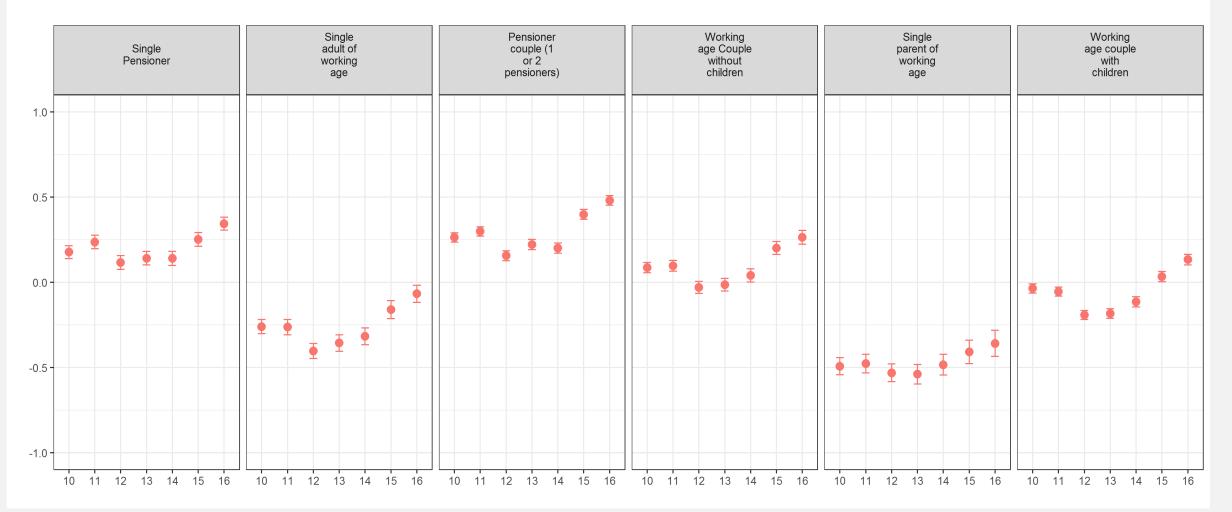
Income is much better at explaining enforced lack (cannot afford)

\* Other reasons are better explained by national characteristics (data collection, unobserved characteristics)

(Source: Guio, Gordon, Najera, and Pomati, 2017)

## Parallel trends in satisfaction with income

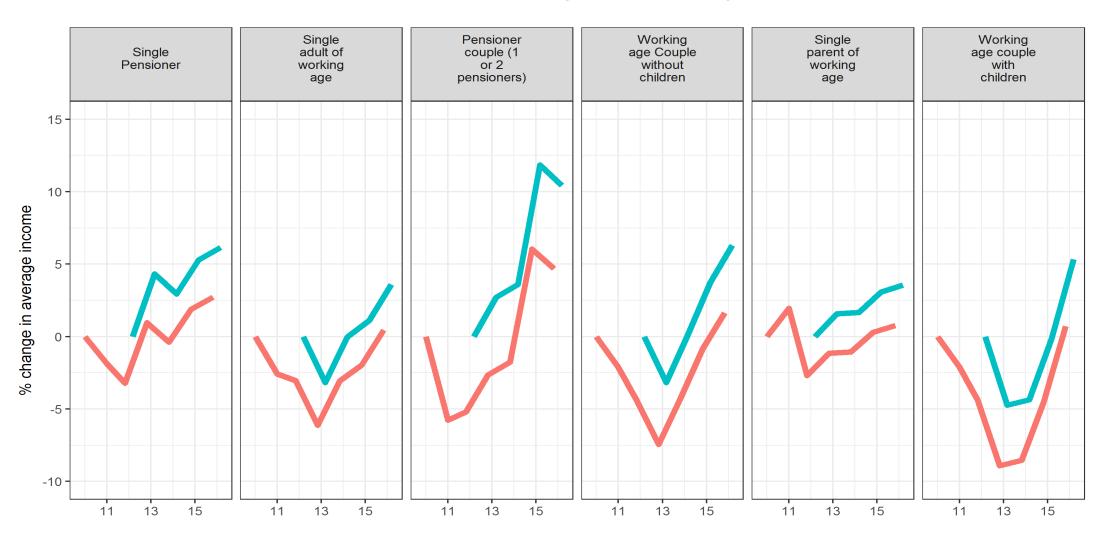
- Satisfaction with income



Original scale ranging from (1) completely dissatisfied to (7) completely satisfied

Patsios and Pomati (2018)

## UK recession and post-recession



## Exploring Individual consensus agreement

- Cohen's kappa coefficient
- Used in psychometrics to rate agreement between raters (inter-rater agreement)
- Conservative measure of agreement
- Focus on similarity of agreement patterns rather than support for items.
- McKay (2004) found low levels of inter-rater agreement
- Might point to heterogeneity in understanding of terms necessities and poverty (e.g. see discussion in Fahmy, Sutton and Pemberton, 2015) and helps fine-tune understanding of term consensus

## Adaptive preferences and poverty measurement

Very limited evidence of bias for Consensual Approach:
 Definition of necessities and enforced lack relatively unaffected
 (Hallerod, 2006; Crettaz and Suter, 2013; Wright and Noble, 2013).

• Critiques of Walker and McKay useful for clarifying scope:

Consensus as establishing which individual items are endorsed by the majority. A democratic exercise

- We've discussed the initial stages of the Consensual Approach
- We have focused particularly on the concept of suitability (items are wanted by the majority of the population), but there are several other stages required to create a poverty measure.
- Tomorrow, we'll discuss the methodology developed within this approach and approved by all EU members.

## Revising the EU material deprivation variables

ANNE-CATHERINE GUIO, DAVID GORDON, HECTOR NAJERA, MARCO POMATI

2017 edition

## References

- Crettaz, E., & Suter, C. (2013). The impact of adaptive preferences on subjective indicators: An analysis of poverty indicators. Social Indicators Research, 114, 139–152.
- Fahmy, E., Sutton, E., & Pemberton, S. (2015). Are we all agreed? Consensual methods and the 'necessities of life'in the UK today. *Journal of social policy*, 44(3), 591-610.
- Guio, Anne-Catherine, Gordon, David, Najera, Hector and Pomati, Marco (2017). Revising the EU material deprivation variables. Luxembourg: Publications Office of the European Union Available at: <u>http://dx.doi.org/10.2785/33408</u>
- Hallerod, B. (2006). Sour grapes: Relative deprivation, adaptive preferences and the measurement of poverty. Journal of Social Policy, 35, 371–390.
- Mack, J., & Lansley, S. (1985). *Poor britain*. London: Allen & Unwin.
- McKay S. (2004), 'Poverty or preference: what do "consensual deprivation indicators" really measure?', Fiscal Studies, 25: 2, 201–223.
- Nandy and Pomati (forthcoming) Measuring Multidimensional Poverty According to National Definitions -Operationalising Target 1.2 of the Sustainable Development Goals
- Sen, A. K. (1992). *Inequality reexamined*. Oxford University Press.
- Walker R. (1987), 'Consensual approaches to the definition of poverty: towards an alternative methodology', Journal of Social Policy, 16: 2, 213–226.
- Wright, G., & Noble, M. (2013). Does widespread lack undermine the socially perceived necessities approach to defining poverty? Evidence from South Africa Journal of Social Policy, 42, 147–165.