



# Universal Poverty Measurement

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**ACEIR Advanced Methods Seminar**

School of Economics Seminar Room,

Level 4, New Economics Building, Stanley Road, Middle Campus, UCT

26<sup>th</sup> August 2022

## Talk Outline

- 1) Context – Why do we need a universal poverty measure
- 2) How to construct a universal poverty measure: Theory
- 3) How to construct a universal poverty measure: Practice
- 4) How to use the poverty measure to help improve anti-poverty policies

# Sustainable Development Goals (SDGs) 2015 to 2030



**17 Goals, 169 targets, 232 Indicators**

## **SDG Goal 1 Targets. End poverty in all its forms everywhere**

1.1 by 2030, eradicate extreme poverty for all people everywhere, currently measured as people living on less than \$1.25 a day

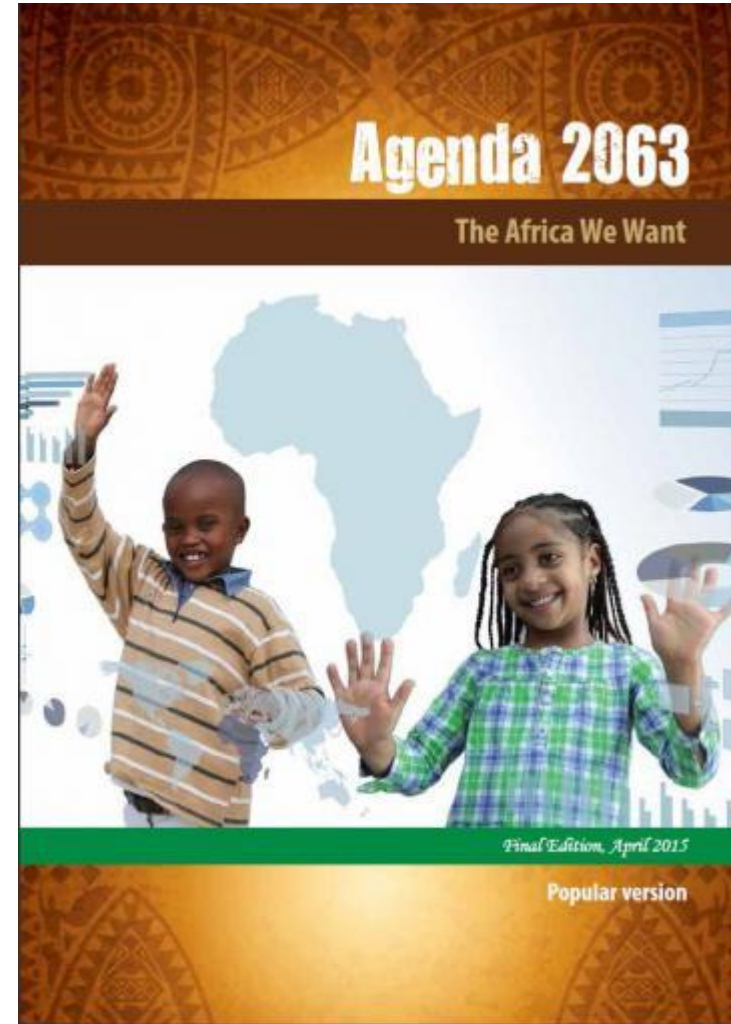
1.2 by 2030, reduce at least by half the proportion of men, women and children of all ages living in poverty in all its dimensions according to national definitions

1.3 implement nationally appropriate social protection systems and measures for all, including floors, and by 2030 achieve substantial coverage of the poor and the vulnerable

# Agenda 2063: First Ten Year Implementation Plan

## Improvements in Living Standards

- Real per-capita incomes would be a third more than 2013 levels.
- Incidence of hunger, especially amongst Women and Youth will only be 20% of 2013 levels.
- Job opportunities will be available to at least one in four persons looking for work.
- At least one out of every three children will be having access to kindergarten education with every child of secondary school age in school and seven out of ten of its graduates without access to tertiary education enrolled in TVET programmes.
- Malnutrition, maternal, child and neo-natal deaths as at 2013 would be reduced by half; access to anti-retroviral will be automatic and proportion of deaths attributable to HIV/AIDs and malaria would have been halved.
- Nine out of ten persons will have access to safe drinking water and sanitation; electricity supply and internet connectivity will be up by 50% and cities will be recycling at least 50% of the waste they generate.



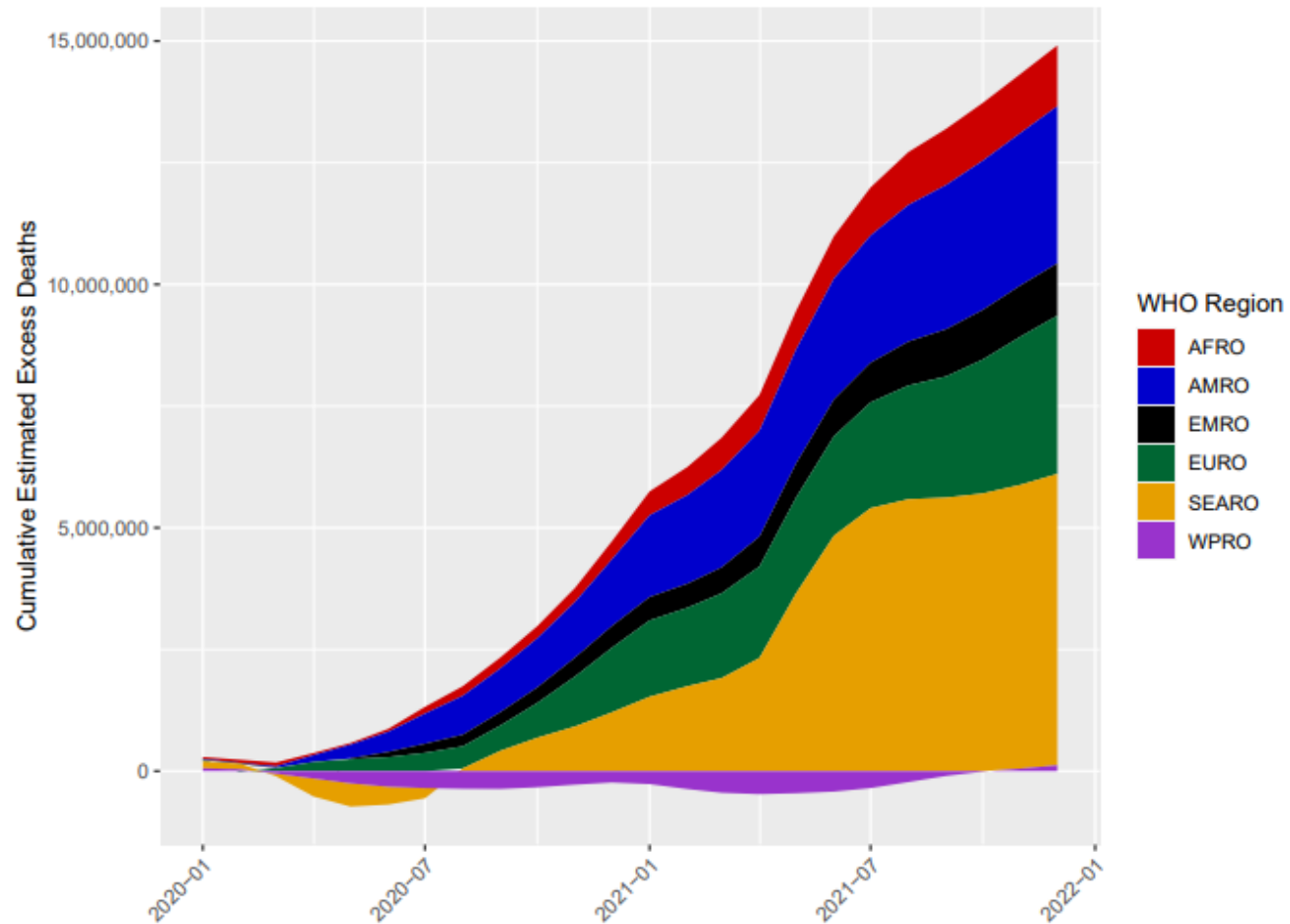
# Progress for the Sustainable Development Goals?

UN SDG Report 2019 key findings:

- 1) Goal 1: The world is not on track to end extreme poverty by 2030
- 2) Goal 2: Millions more are living in Hunger (784 million in 2015, 821 million in 2017)
- 3) Goal 3: There were about 3.5 million more Malaria cases in Africa in 2017 compared with 2016
- 4) Goal 4: One in five children (aged 6 to 17) do not attend a school
- 5) Goal 5: 18% of ever partnered women have experienced physical or sexual partner violence in the past 12 months
- 6) Goal 6: 785 million people do not have basic water services and 673 million have to defecate in the open
- 7) Goal 7: Three billion people lack clean cooking fuels and technology
- 8) Goal 8: One in five young people are not in education, employment or training
- 9) Goal 9: Industrialisation in LDCs is too slow to meet the 2030 targets
- 10) Goal 10: In many countries an increasing share of income goes to the top 1%
- 11) Goal 11: 90% of urban residents breath polluted air
- 12) Goal 12: The global material footprint is increasing rapidly (faster than economic or population growth)
- 13) Goal 13: The global mean temperature was 1°C higher in 2018 than pre-industrial levels.
- 14) Goal 14: Ocean acidity has increased by 26% compared with pre-industrial levels.
- 15) Goal 15: Biodiversity loss is accelerating
- 16) Goal 16: Less than three quarters of children have their birth registered
- 17) Goal 17: In 2018 aid to LDCs fell by 3% and aid to Africa fell by 4% (in real terms)

# **Covid19 and the need for efficient and effective anti-poverty policies**

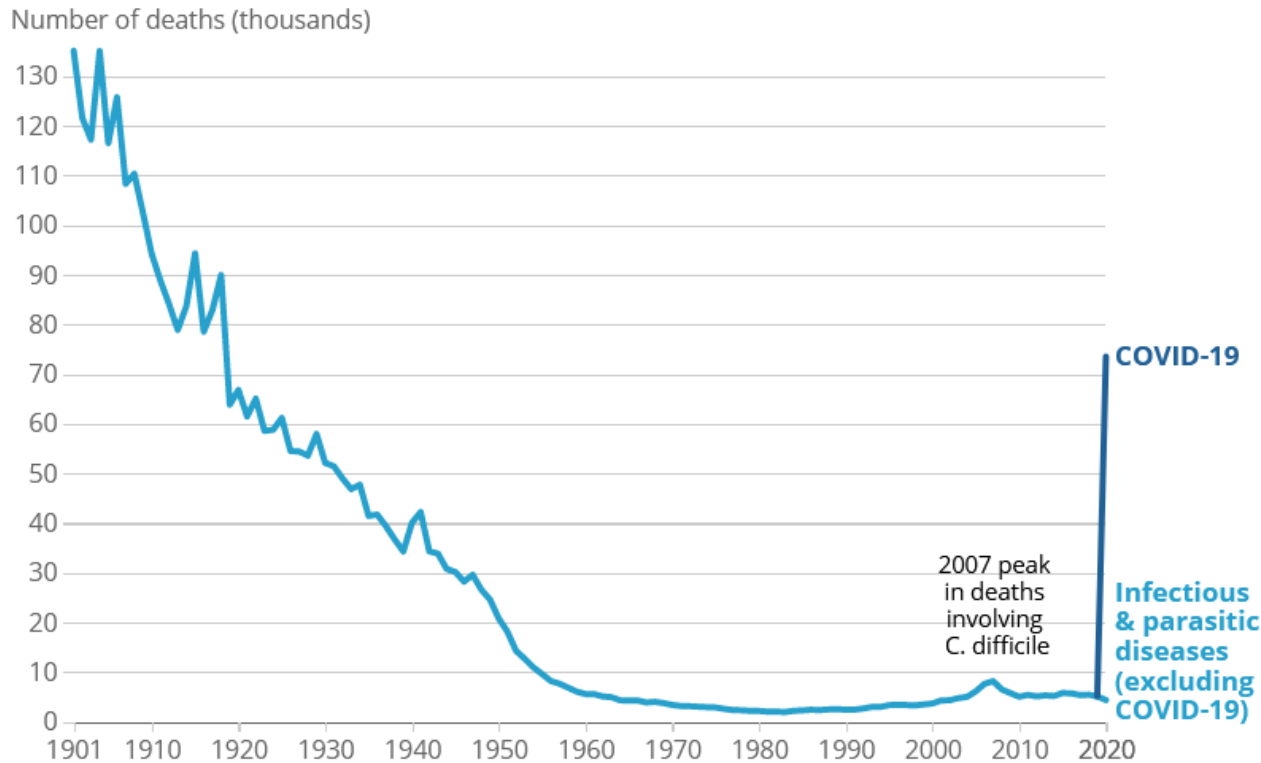
# Estimated Global Excess Deaths as a Result of the Pandemic in 2020 & 2021



*The official number of deaths caused by covid-19 during 2020 & 2021 was 5.5m, the World Health Organisation estimated that the actual death toll was **15 million**. There were an additional 1.25 million deaths in Africa compared with the official number of reported deaths*



## Number of deaths registered due to infectious and parasitic diseases, England and Wales, 1901 to 2020 and COVID-19 in 2020



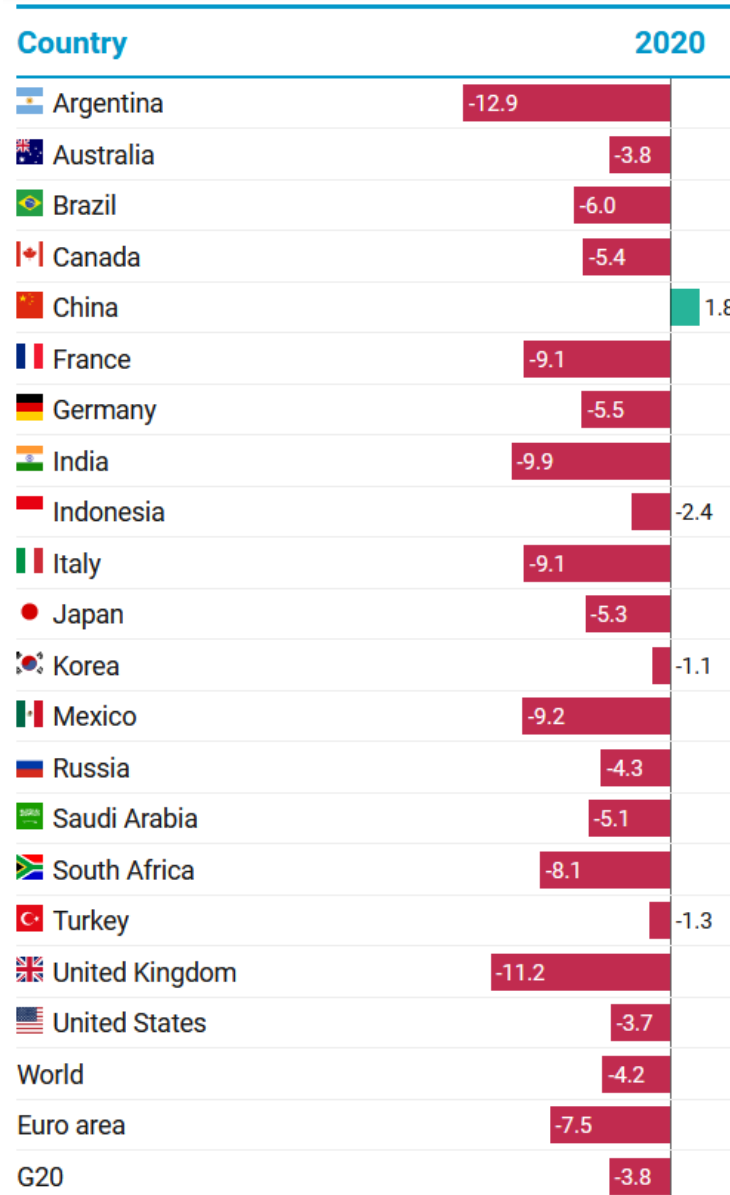
*“The COVID-19 pandemic triggered significant mortality increases in 2020 of a magnitude not witnessed since World War II in Western Europe or the breakup of the Soviet Union in Eastern Europe. Females from 15 countries and males from 10 ended up with lower life expectancy at birth in 2020 than in 2015.”*

Source: ONS (2021) A Year Like No Other

<https://www.ons.gov.uk/peoplepopulationandcommunity/healthandsocialcare/conditionsanddiseases/articles/coronavirusayearlikenoother/2021-03-15>

Source: Aburto et al (2021) Quantifying impacts of the COVID-19 pandemic through life-expectancy losses: a population-level study of 29 countries. *International Journal of Epidemiology*  
<https://doi.org/10.1093/ije/dyab207>

## Projected Change in Real GDP in 2020



Source: OECD (2020) *Turning hope into reality*. OECD Economic Outlook, December 2020

<https://www.oecd.org/economic-outlook/december-2020/#global-outlook>

# Zero Covid is good for health and the economy

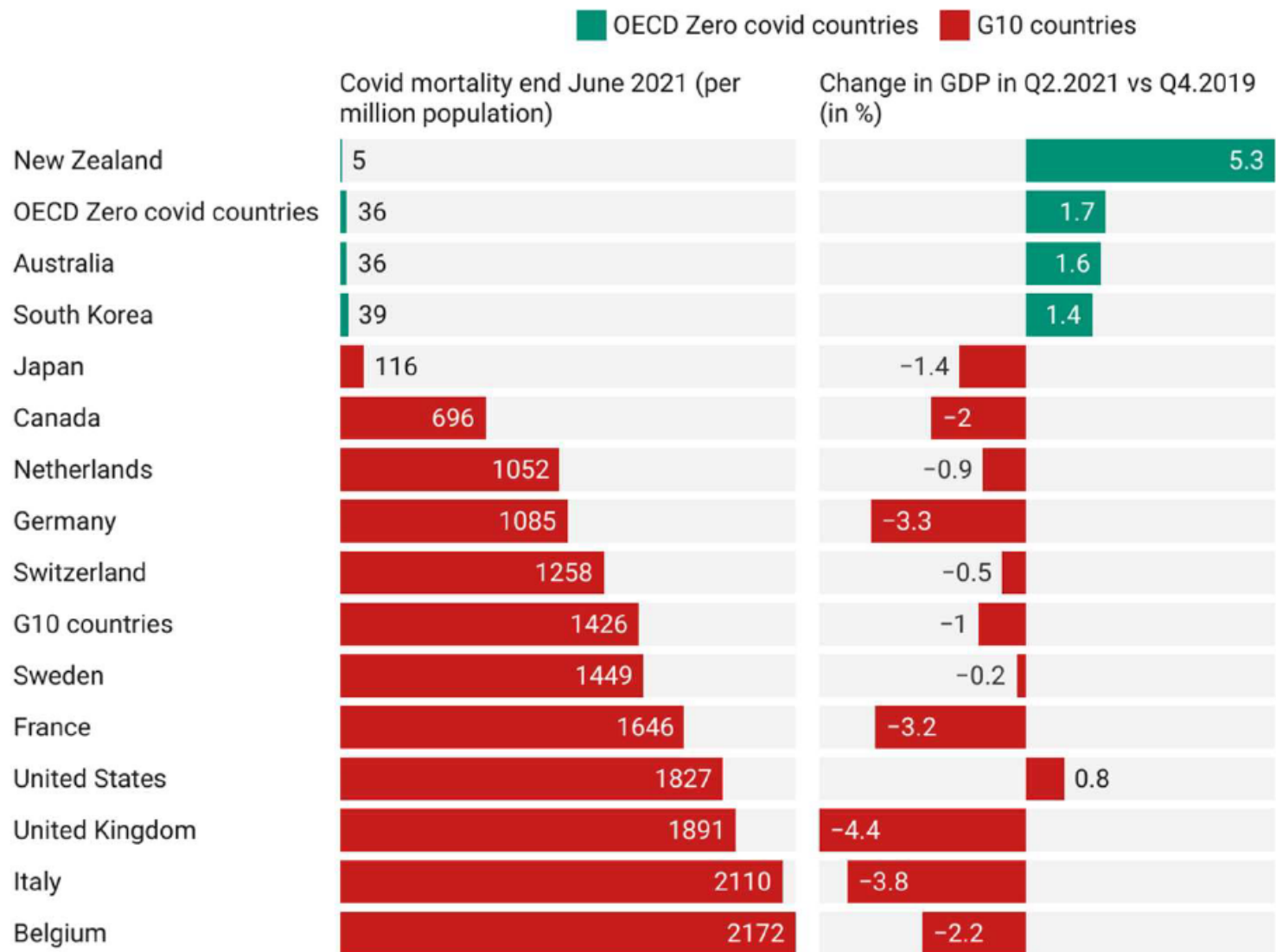
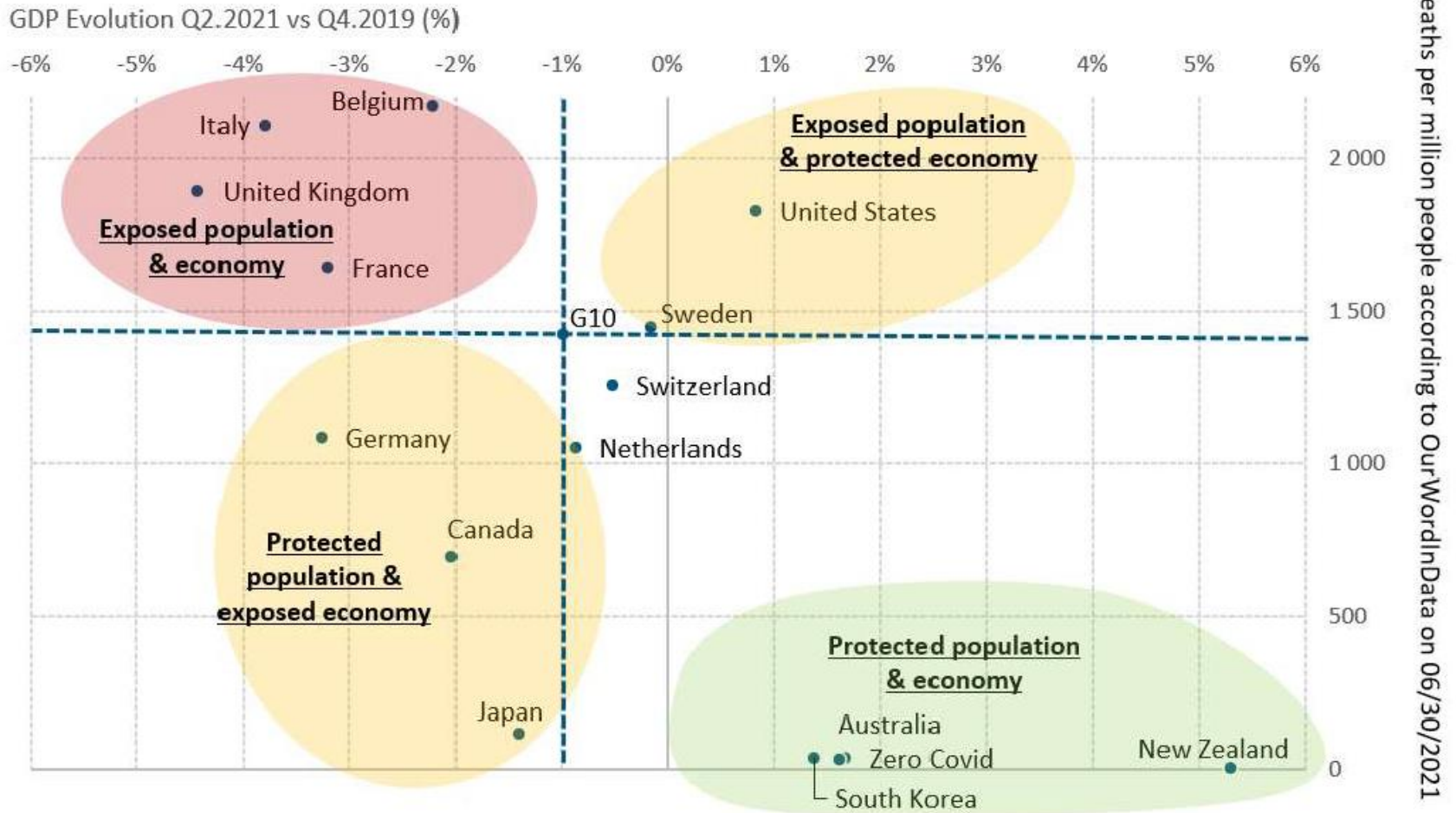


Chart: Institut économique Molinari with OurWorldInData & OECD • Created with Datawrapper

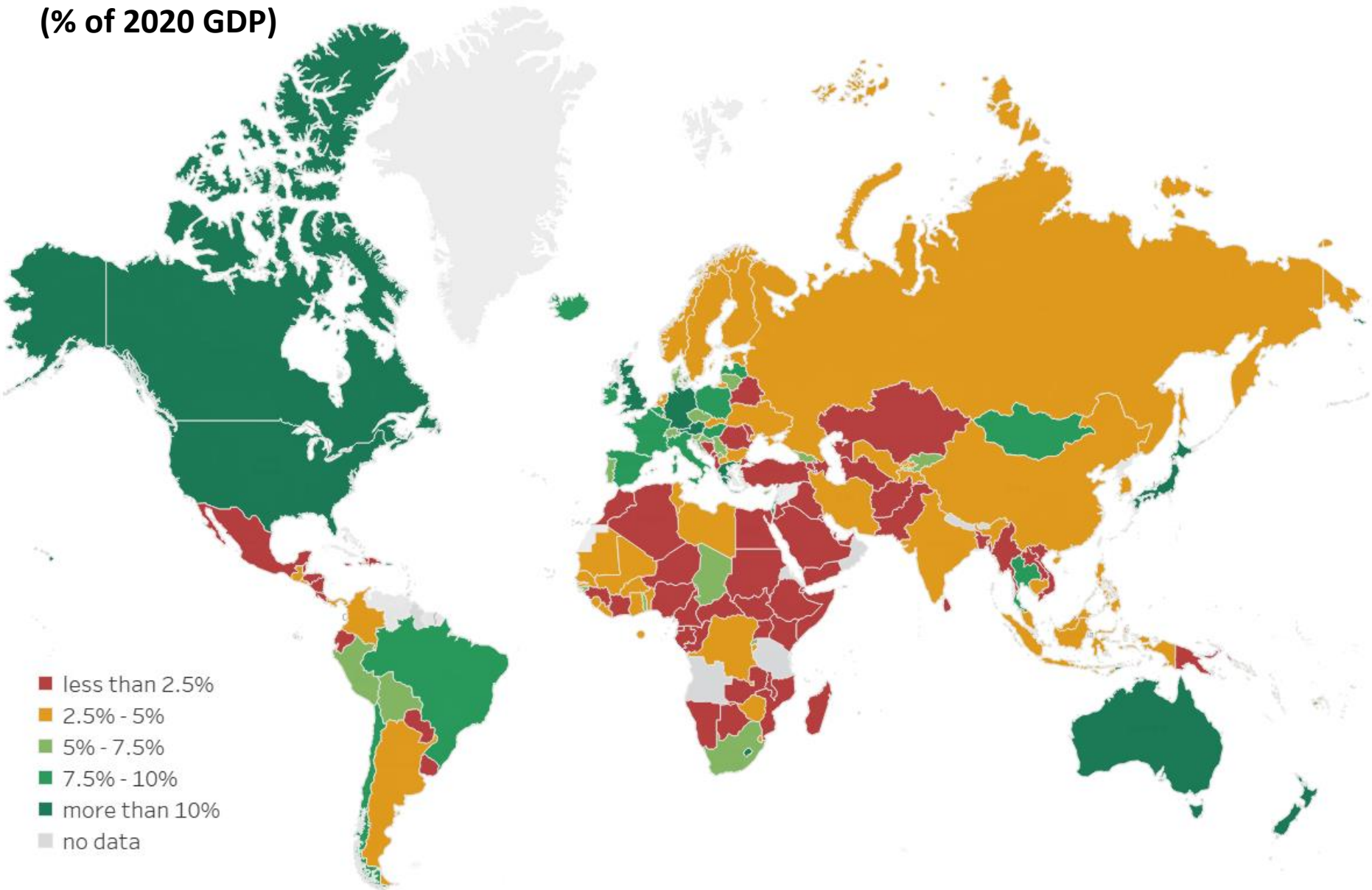
**Figure 3 : Covid: The countries that performed best protected both their people and their economies in the second quarter of 2021**



Sources: Institut économique Molinari, based on OECD (quarterly accounts, VPVOBARSA series in US dollars, volume, purchasing power parity, seasonally adjusted, extracted on 09/16/2021) and OurWorldData (Cumulative confirmed COVID-19 deaths per million people) for the 11 G10 countries plus Australia, South Korea and New Zealand, which have applied the Zero Covid strategy.

Source: Philippe, C. & Marques, N. (2021) *The Zero Covid strategy continues to protect people, economies and freedoms more effectively*. Institut Économique Molinari | World Health Network. <https://www.institutmolinari.org/wp-content/uploads/2021/09/zero-covid-whn-sept2021.pdf>

## Additional Spending and Forgone Revenue: Response to the COVID-19 Pandemic (% of 2020 GDP)



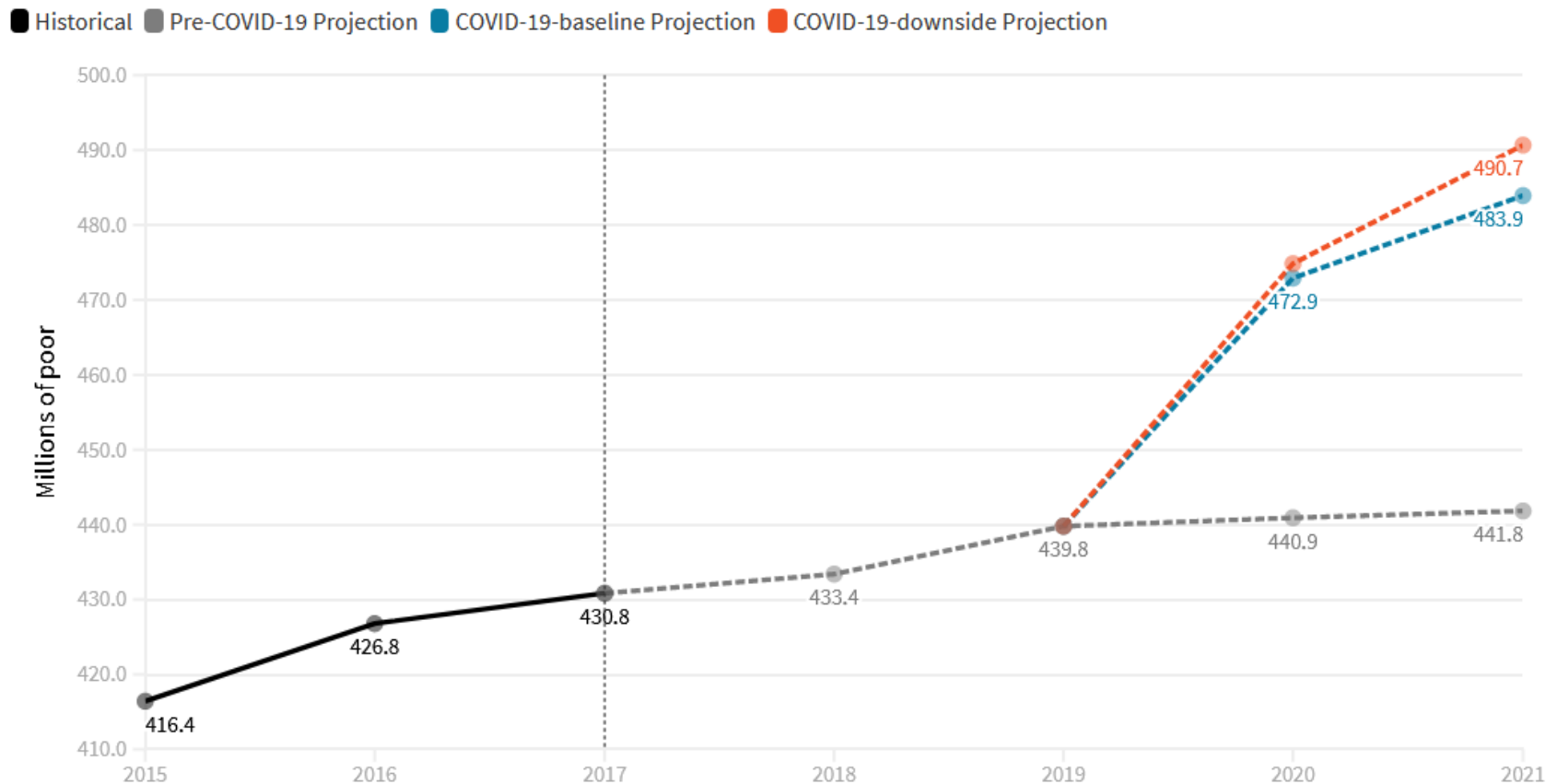
## Poverty and Pandemics

Bioarchaeological research has shown that, even in pre-industrial societies, the people at greatest risk during pandemics were:

*“often those already marginalized—the poor and minorities who faced discrimination in ways that damaged their health or limited their access to medical care.”* (Wade, 2020, p700).

Depending on the extent of the economic damage wrought by the pandemic, it is estimated that extreme income poverty (\$1.90 per day PPP poverty) will increase *“by between 85–135 million under a 5 per cent contraction, by between 180–280 million under a 10 per cent contraction, and, startlingly, between 420–580 million people under a per capita income or consumption contraction of 20 per cent.”* (Sumner, Hoy & Otiz-Juarez, 2020, p5-6).

## World Bank Forecast of Number of People in Extreme Poverty in sub-Saharan Africa: 2015-2021



Source: [Lakner et al \(2020\) \(updated\)](#), [PovcalNet](#), [Global Economic Prospects](#).

Note: Extreme poverty is measured as the number of people living on less than \$1.90 per day. 2017 is the last year with official global poverty estimates. Regions are categorized using PovcalNet definition.

Source: [https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021?cid=ECR\\_E\\_NewsletterWeekly\\_EN\\_EXT&deliveryName=DM90562](https://blogs.worldbank.org/opendata/updated-estimates-impact-covid-19-global-poverty-looking-back-2020-and-outlook-2021?cid=ECR_E_NewsletterWeekly_EN_EXT&deliveryName=DM90562)

# Inequality and the Pandemic

Across Africa, millions of people have lost their jobs or seen significant reductions in their incomes as a direct result of the pandemic. For example, a survey of 2,400 small businesses in eight African countries (DRC, Ghana, Kenya, Malawi, Rwanda, Tanzania, Uganda and Zambia) which receive microfinance loans from World Vision showed that **92%** had suffered falls in their income which affected their ability to repay their loans (Kabore, Wong & Munzara, 2020).

In Uganda, After correcting for sampling differences before and during COVID19, **monetary poverty increased 7% and multidimensional poverty 5%** in just a few months

Period	Monetary	Multidimensional
Before COVID-19	26	41
During COVID-19	33	46
Total 2019/2020	30	44



Figure 1. Percentage change in employment by sex, 2006-2021 and employment rate, 2021



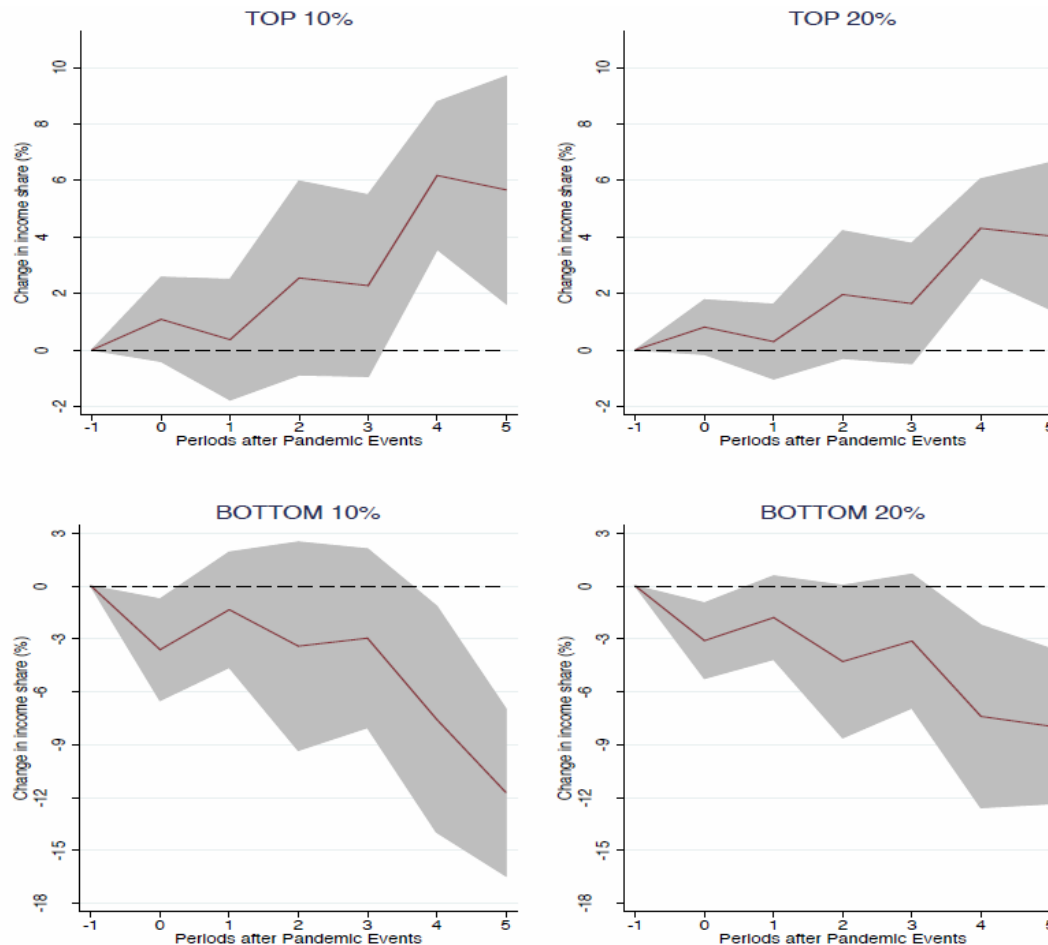
Source: ILO calculations based on ILOSTAT, ILO modelled estimates.

“in 2021, there will still be 13 million fewer women in employment compared to 2019, while men’s employment will have recovered to 2019 levels” – ILO Policy Brief *Building Forward Fairer: Women’s rights to work and at work at the core of the COVID-19 recovery*. July 2021.

# Pandemics have always done greater harm to poor and vulnerable people and resulted in increases in poverty and inequality

## Average impact of the last five epidemics on Inequality: Income shares of the richest and poorest in 64 Countries

(SARS in 2003, H1N1 in 2009, MERS in 2012, Ebola in 2014 and Zika in 2016)



'Periods' are years before & after the epidemic

Source: Furceri et al, (2020) Will Covid-19 affect inequality? Evidence from past pandemics. *Covid Economics*, 12, 138-157

# Global Inequality

The world's twenty two richest men have more wealth than all the women in Africa (325 million women)

Oxfam (2020) Time to Care

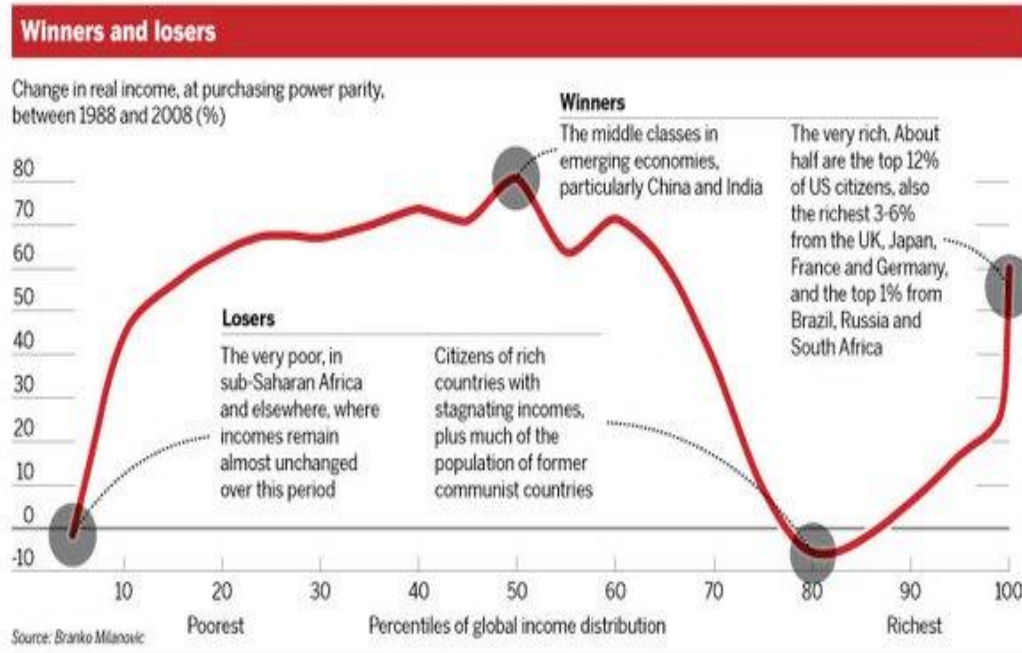
The world's ten richest men own more wealth than the bottom 40 percent of humanity, 3.1 billion people

Oxfam (2022) *Profiting From Pain*

If the pre-pandemic trends continue then the richest 1% will own 64% of the world's wealth by 2030

UK House of Commons Library  
Research: Inclusive Growth, April 2018

<https://www.inclusivegrowth.co.uk/house-commons-library-research>



## Estimated distribution of global wealth under different scenarios, 2017-2030

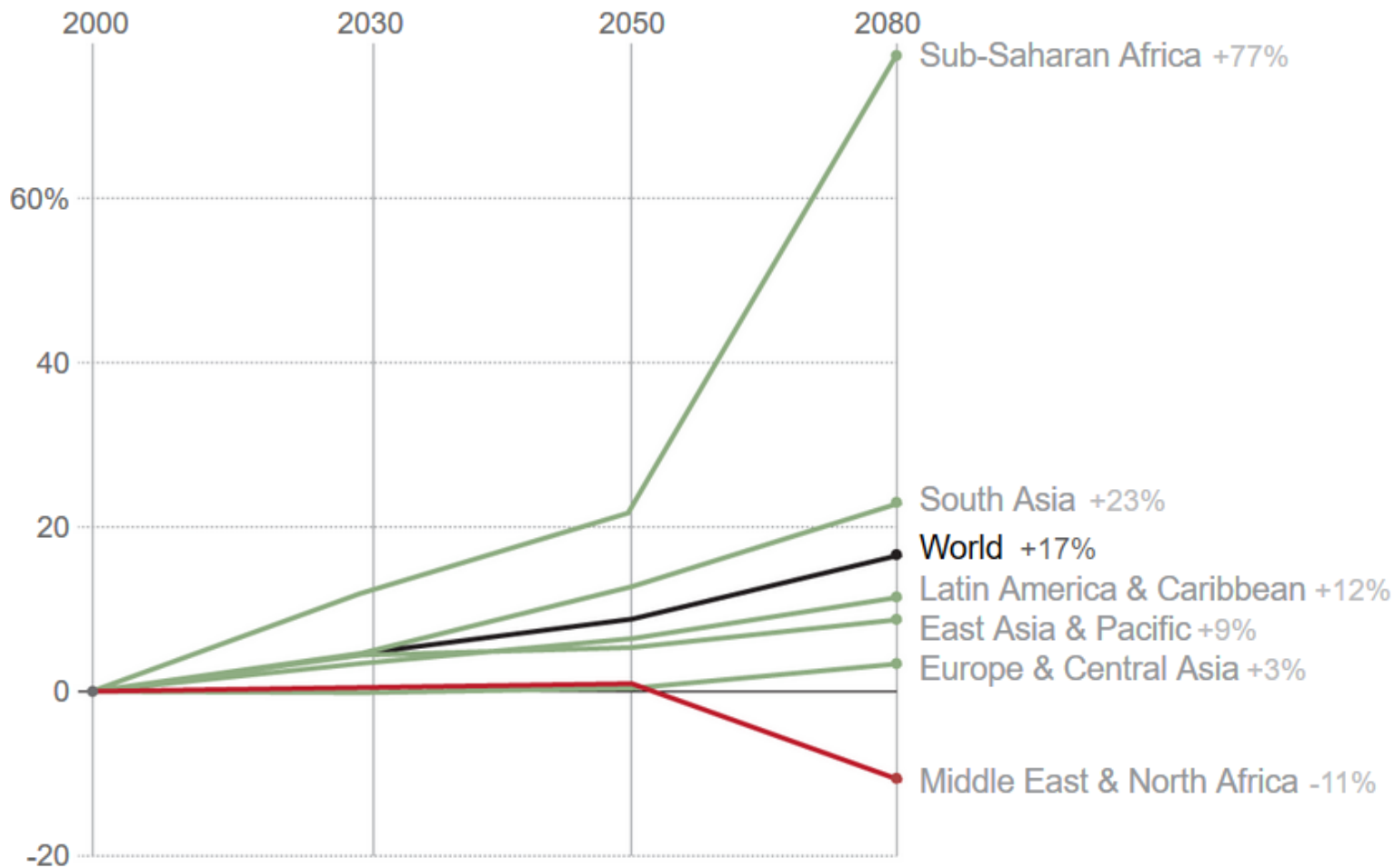
	Least wealthy	
	Wealthiest 1%	99%
<b>Share of total wealth in 2017</b>	50%	50%
<i>Total wealth, annual rate of increase 2000-17</i>	6%	5%
<i>Total wealth, annual rate of increase 2008-17</i>	6%	3%
<b>Share of total wealth in 2030</b>		
Assuming total wealth grows at 2000-17 annual rate	54%	46%
Assuming total wealth grows at 2008-17 annual rate	64%	36%

Note: the composition of each group will change from year to year. Someone who is in the wealthiest 1% in one year may be in the least wealthy 99% in the next.

Source: Estimates based on wealth data for 2000-2017 published in Credit Suisse, *Global Wealth Report 2017* and *Global Wealth Databook 2017*

# Impact of climate change on agricultural prices over time

Percent change in agricultural prices over time\*



\*Estimated under a pessimistic development scenario

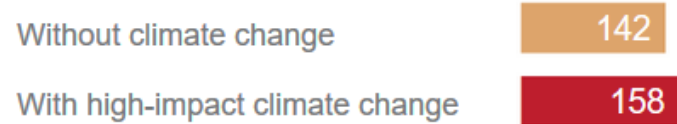
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SOURCES: WORLD BANK; HAVLÍK ET AL.

# By 2030, effects of climate change on agriculture key to driving people into poverty

Number of people in extreme poverty, in millions

## Prosperity scenario\*



## Poverty scenario\*



126 million more people will be affected with a high-impact climate change. These are the main causes



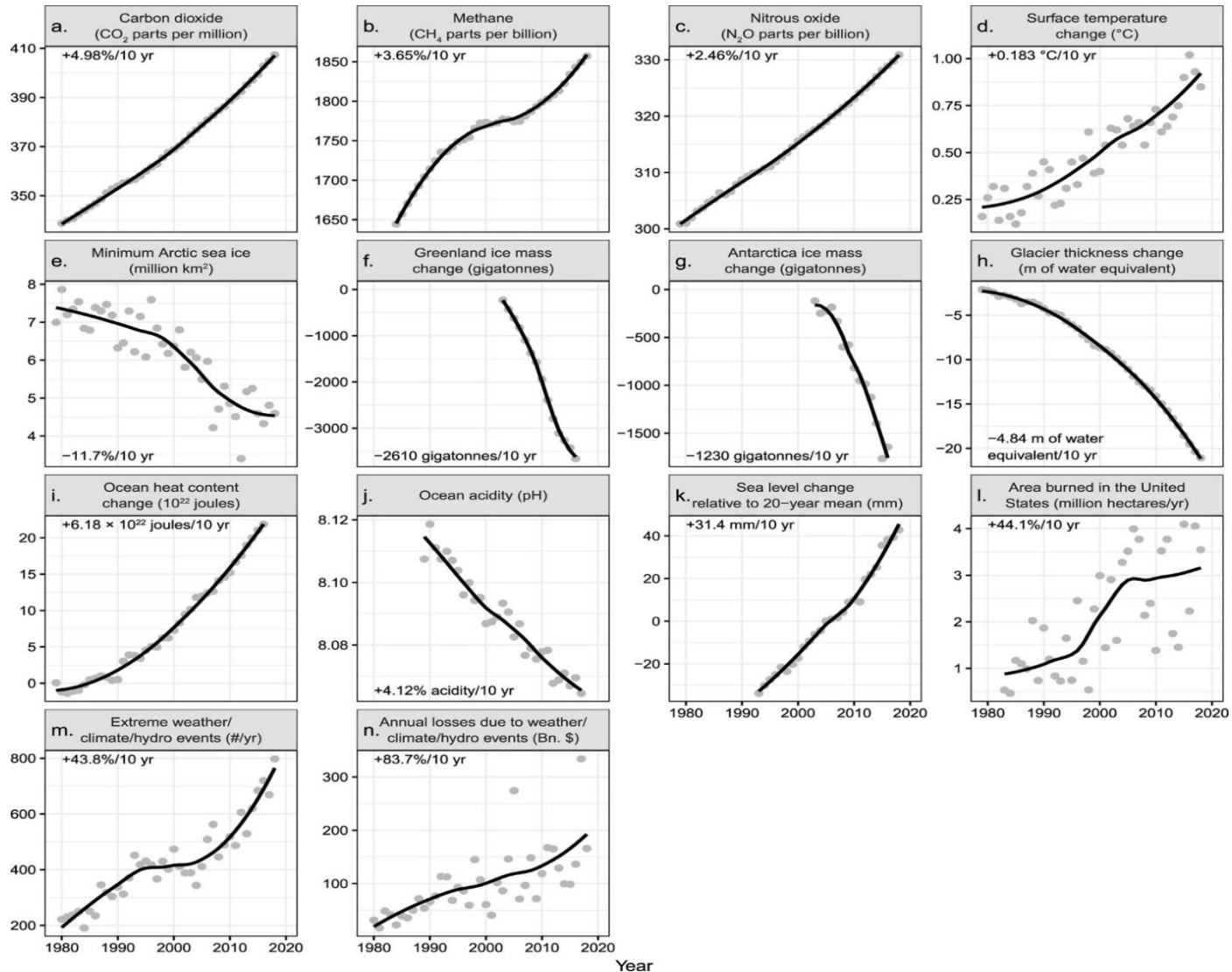
\*Scenarios developed based on different social and economic policies

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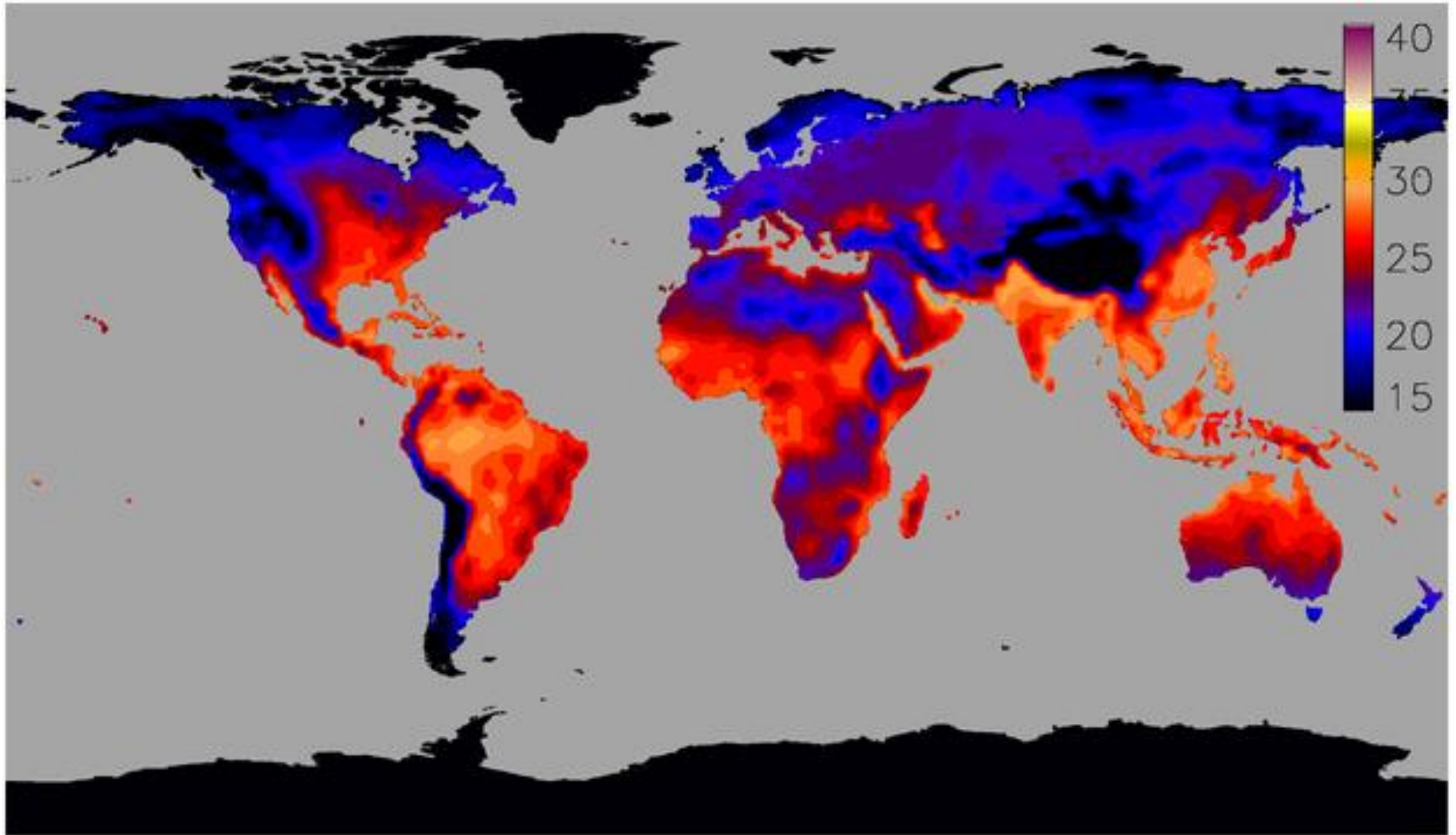
SOURCES: WORLD BANK; ROZENBERG AND HALLEGATTE

# Climatic and environmental changes from 1979 to the present.

The rates shown in the panels are the decadal change ...

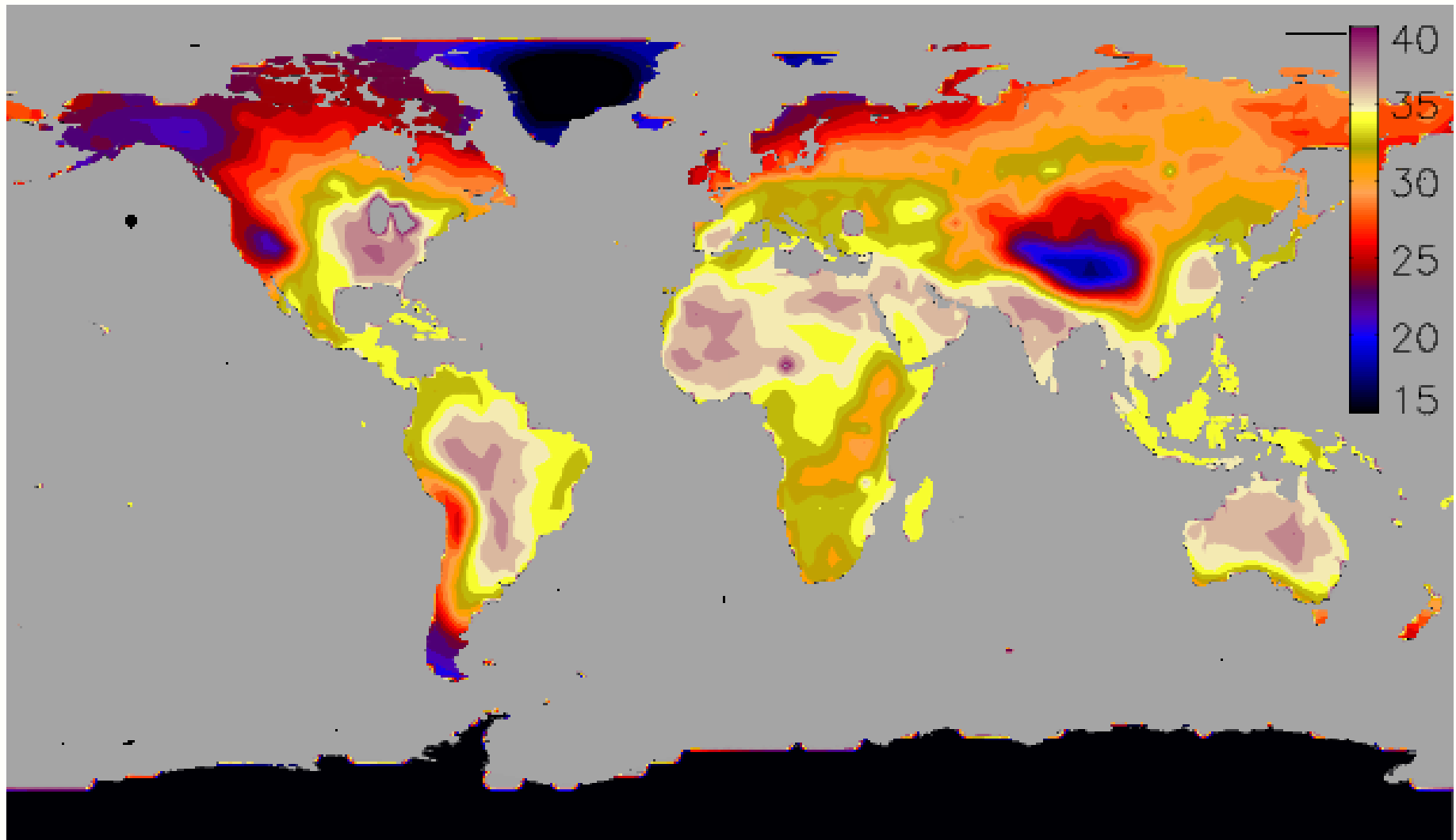


## Peak annual afternoon wet-bulb temperatures: 1999 to 2008



Sherwood, S. & Huber, M. (2010) An adaptability limit to climate change due to heat stress. *Proceedings of the National Academy of Sciences*, 2010. 107 (21): 9552–9555

# Climate Model Prediction of Wet Bulb Temperatures: 10°C Average Global Warming

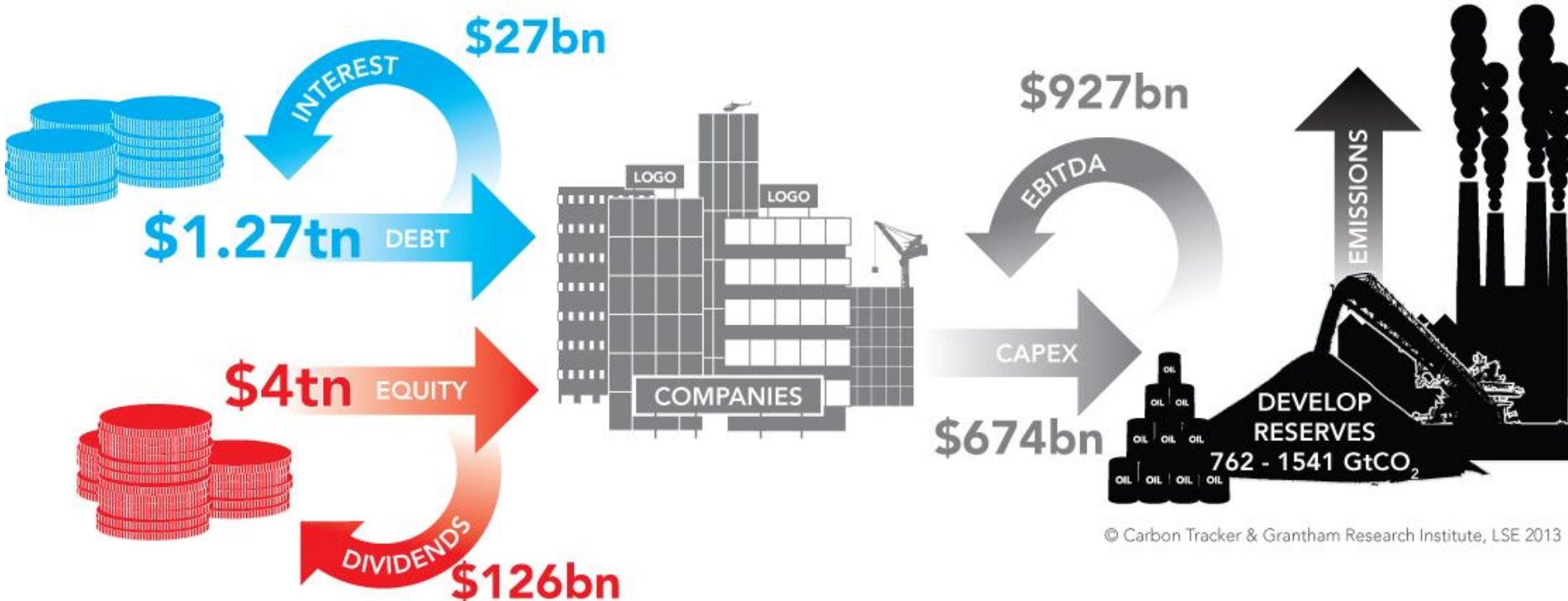


Sherwood, S. & Huber, M. (2010) An adaptability limit to climate change due to heat stress. *Proceedings of the National Academy of Sciences*, 2010. 107 (21): 9552–9555

Under a business-as-usual scenario “By the end of the century, annual TWmax in Abu Dhabi, Dubai, Doha, Dhahran and Bandar Abbas exceeds 35 C several times,” Pal & Elfathir (2016, p198) *Nature Climate Change*, 6



# Top 200 Fossil Fuel Companies (Oil, Gas and Coal Mining) Financial Flows



EBITDA – *earnings before interest, taxes, depreciation, and amortization*

CAPEX - *Capital expenditures*

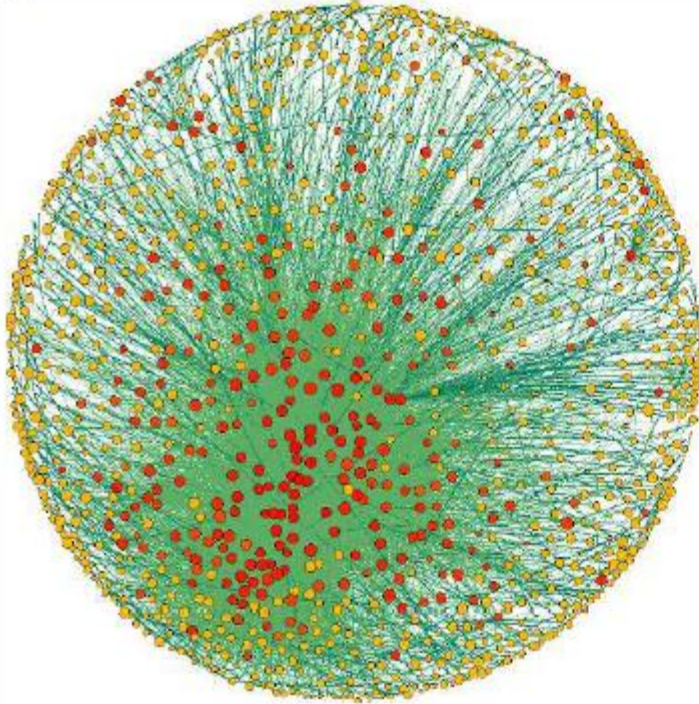
Source: Carbon Tracker 2013 –Wasted Capital and Stranded Assets - <http://www.carbontracker.org/>

*less than half the proven economically recoverable oil, gas and coal reserves can still be emitted up to 2050 – Meinshausen et al (2009) ‘Greenhouse-gas emission targets for limiting global warming to 2°C’ Nature doi:10.1038/nature08017 – p1158.*

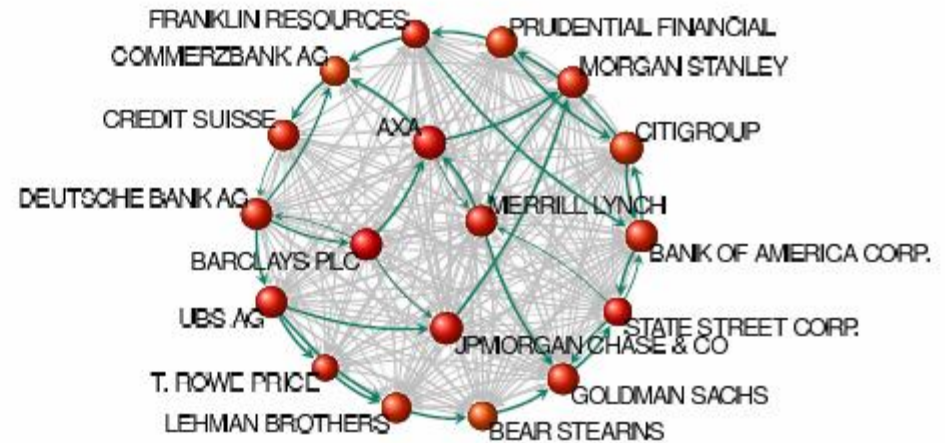
*60-80% of coal, oil and gas reserves of listed firms are unburnable –Carbon Tracker 2013 – Wasted Capital and Stranded Assets. LSE – p4*

# The Network Structure of Global Capitalism in 2007

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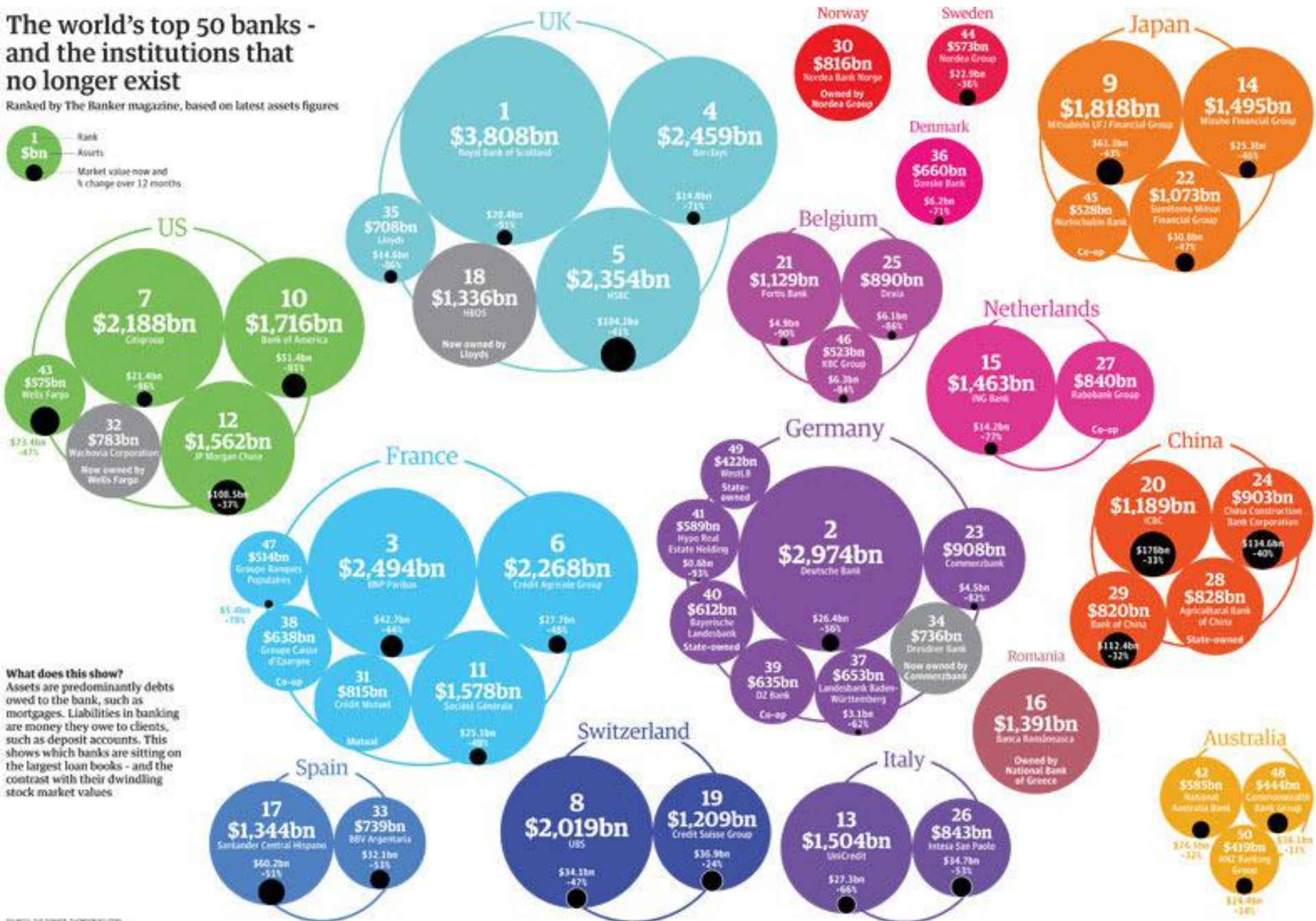
Only 737 firms (mainly banks) have 80% of the control over the value of all Transnational Corporations (TNCs). The top ranked actors hold a control ten times bigger than what could be expected based on their wealth

Network analyses of 43,060 TNCs, taken from a sample of about 30 million businesses contained in the Orbis 2007 database resulted in 1,006,987 ownership ties. Vitali et al (2011) *The network of global corporate control*

# The world's top 50 banks - and the institutions that no longer exist

Ranked by The Banker magazine, based on latest assets figures

1 Sbn  
 Rank  
 Assets  
 Market value now and % change over 12 months



**What does this show?**  
 Assets are predominantly debts owed to the bank, such as mortgages. Liabilities in banking are money they owe to clients, such as deposit accounts. This shows which banks are sitting on the largest loan books - and the contrast with their dwindling stock market values.

SOURCE: THE BANKER, THE ECONOMIST

# **Universal Poverty Measurement: Theory**

# The Problem

Is it possible to produce comparable and meaningful poverty measures which can be used in all countries given the huge differences in culture and living standards e.g. in Luxembourg a poor person may be someone who cannot afford access to the internet, whereas in Liberia a poor person maybe someone who cannot afford soap and basic toiletries. How can their poverty be measured and compared in a valid, reliable and meaningful way?

## Perquisites

- 1) A theory and definition of poverty which is universally applicable in all societies
- 2) A method which automatically adapts to measure the realities of the lives of poor people in the country/society where they live.
- 3) A method which can produce comparable estimates of the extent and depth of poverty even when the different questions/indicators are used in different countries and/or for different age groups e.g. children, working age adults, older people.
- 4) A method which produces demonstrably valid/accurate and reliable/precise poverty measurement.

# Why Shouldn't we just use the World Bank's Poverty Measures

## SDG 1.1.1 – International Poverty Line (IPL)

The World Bank's International Poverty Line - \$1 (1985 PPP), \$1.08 (1993 PPP), \$1.25 (2005 PPP), \$1.90 (2015 PPP) and \$2.15 (2017 PPP) - is designed primarily to measure extreme/absolute poverty for the purposes of international comparison.

It is not designed to provide accurate or reliable measurement of the extent and nature of poverty in Middle Income countries (where most of the World's poor people live) or High Income countries like the USA, and should not be used for this purpose. If the Bank's international poverty line is applied to the US, a person with a daily income of \$1.37 (~\$500/year) would be identified as not poor –the measure lacks face-validity in Middle and High Income countries.

When the SDGs were set, it was the approximate average value of the national poverty lines of 15 countries (twelve from Sub-Saharan Africa and two from Asia – Chad, Ethiopia, Gambia, Ghana, Guinea-Bissau, Malawi, Mali, Mozambique, Niger, Rwanda, Sierra Leone, Tanzania, Uganda, Nepal and Tajikistan – most of these countries have relatively small populations).

The World Bank's poverty measurement methodology has long been contested on theoretical, methodological and even moral grounds (Deaton 2010, Reddy and Pogge 2008, Klasen et al. 2016, Atkinson, 2017).

People in high and middle income countries have access to an extensive range of capital goods, e.g. schools, hospitals, roads, electricity distribution, water supply infrastructure, sewerage systems, etc. In low income countries, millions do not have access to schools, hospitals, safe water, etc, because these capital goods simply do not exist where they live.

## **SDG 1.2.1 – National Poverty Line**

The World Bank has also developed a *Cost of Basic Needs* poverty methodology which it proposes could be used to produce national poverty lines in some countries. However, poverty is not measured by calculating a comprehensive budget standard which includes the cost of non-food needs such as housing, clothing, health, education or meeting social obligations. Instead, the absolute poverty line is calculated using the Orshansky multiplier method (developed in the USA over 60 years ago) which is based on Engel's law, dating from 1857. Even in the 1960s this methodology was criticised as being out-dated and unscientific (Fisher, 1992).

Several reviews of the methodology by leading experts have supported these criticisms, for example, in 1992, the USA National Academy of Sciences (NAS) Panel on Poverty and Family Assistance concluded that the Orshansky multiplier methodology should be abandoned and a budget standard developed which included food, clothing, shelter (including utilities) and other needs (Citro and Michael, 1995).

More recently, a 2004 review by USA Committee on National Statistics concluded "*that the current measure needs to be revised: it no longer provides an accurate picture of the differences in the extent of economic poverty among population groups or geographic areas of the country, nor an accurate picture of trends over time.*" (Iceland, 2005).

The *Cost of Basic Needs* budget standard food basket is designed by experts to be nutritionally adequate and to reflect the food consumption habits of low income households. This food basket is designed to yield an average of about 2,100 to 2,200 kilo calories per person per day and the cost of this food basket is the Food Poverty Line (FPL).

The Basic Needs Poverty Line (BNPL) is the cost of the FPL plus the cost of the Non-Food Poverty Line (NFPL), which can be calculated in a number of different ways. A reference group of households is selected and their food and non-food expenditures are calculated. In the USA, using 1955 data, it was found that the reference households spent about one third on food and the rest on non-food expenditure. Thus the poverty line was simply set at the FPL multiplied by 3 (the Orshansky multiplier). In 2020, it was about \$35 per day for a single person.

Research has found that there is only a weak association between calorie intake and income in many poor countries (Behrman and Deolalikar, 1987). This is problematic as *“Even the relatively poor individuals weigh heavily food attributes other than calorie content when they make food choice”* (p. 666). The variety of food and not its nutritional value is often affected by changes in income (Behrman & Deolalikar, 1989; Meenakshi and Vishwanathan, 2003).

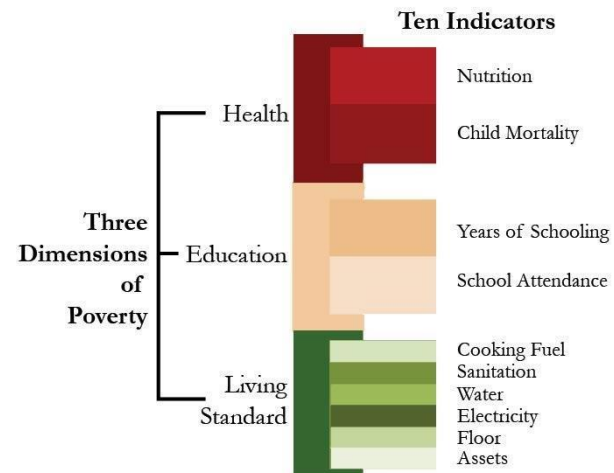
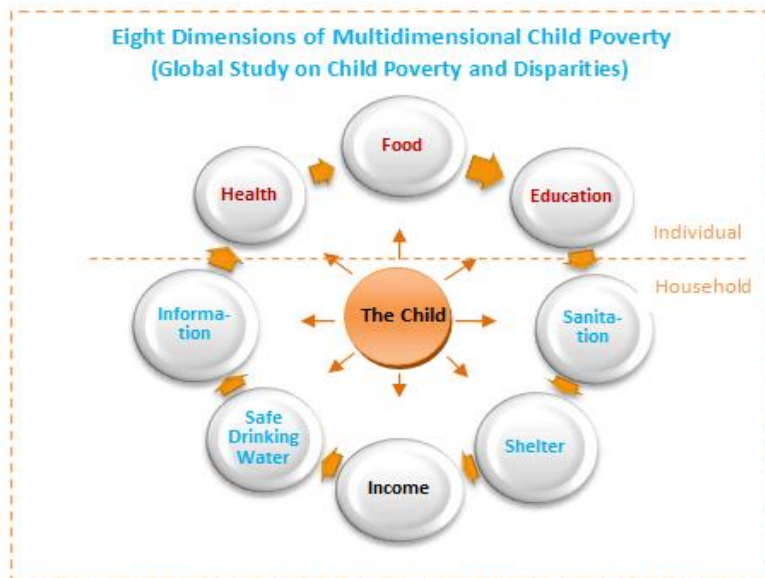
The cost of basic needs methodology is based on a number of questionable assumptions (Rio Group, 2006). Firstly, it *“assumes that the households that satisfy their nutritional needs are satisfying, at the same time, the minimum standards of the other basic needs”*, this assumption is not supported by the empirical evidence (Feres, 1997). Second, Streeten (1989) argues that *“there may be an inconsistency in this way of arriving at a poverty line. The minimum food requirements are derived normatively, by calculating how much the minimum requirements would cost; while the non-food items are determined by observing how much people actually spend. In order to remove the inconsistency, we would have to assume that what people actually happen to spend is what they need to spend on non-food items, a clearly unrealistic assumption.”*



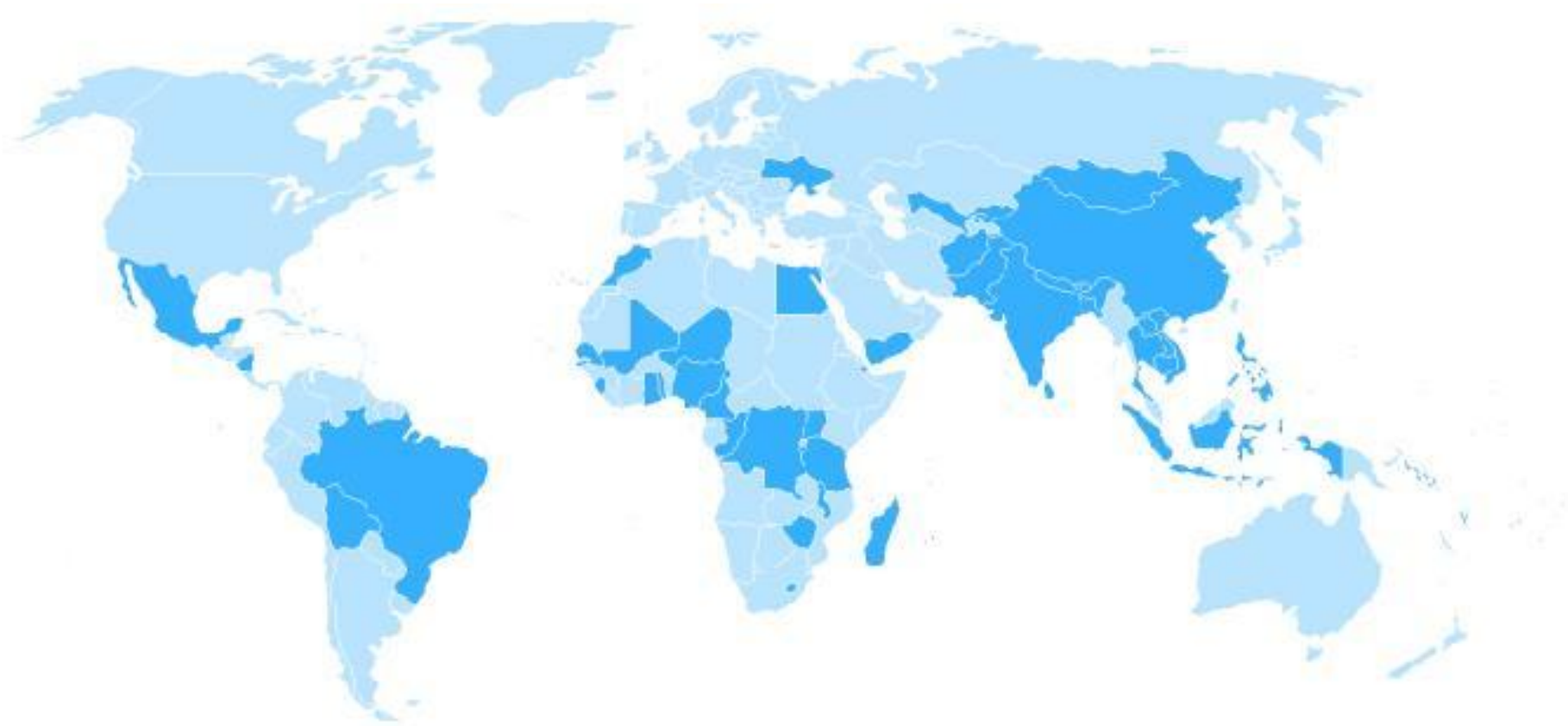
Multidimensional Poverty Methods such as the Bristol method, OPHI MPI and UNICEF MODA are very useful for advocacy purposes but are often not valid and reliable enough to be used as national statistics i.e. for resource allocation and anti-poverty programme evaluation and monitoring

Figure 2 – Life-cycle stages, dimensions and indicators used for the CC-MODA analysis

1 Infant and young child feeding 2 Wasting	<b>Nutrition</b>	<b>Education</b>	1 Compulsory school attendance 2 Primary school attainment
1 DPT Immunization 2 Skilled birth attendance	<b>Health</b>	<b>Information</b>	1 Availability of information devices
1 Access to improved water source 2 Distance to water source	<b>Water</b>	<b>Water</b>	1 Access to improved water source 2 Distance to water source
1 Access to improved sanitation	<b>Sanitation</b>	<b>Sanitation</b>	1 Access to improved sanitation
1 Overcrowding 2 Floor and roof material	<b>Housing</b>	<b>Housing</b>	1 Overcrowding 2 Floor and roof material
1 Domestic violence	<b>Protection from violence</b>	<b>Protection from violence</b>	1 Domestic violence
	<b>Age 0-4</b>	<b>Age 5-17</b>	



# Global Study on Child Poverty and Disparities (2008-2011)



•**Americas and the Caribbean:** Bolivia, Brazil, Jamaica, Mexico, Nicaragua

•**Central and Eastern Europe/Commonwealth of Independent States:** Kosovo, Kazakhstan, Kyrgyzstan, Ukraine, Uzbekistan

•**Eastern and Southern Africa:** Burundi, Indian Ocean Islands, Lesotho, Madagascar, Malawi, Mozambique, Tanzania, Uganda, Zimbabwe

•**East Asia and the Pacific:** Cambodia, China, Indonesia, Lao PDR, Mongolia, Myanmar, Philippines, Solomon Islands, Thailand, Viet Nam, Vanuatu

•**Middle East and North Africa:** Djibouti, Egypt, Morocco, Occupied Palestinian Territory, Yemen

•**South Asia:** Afghanistan, Bangladesh, Bhutan, India, Maldives, Nepal, Pakistan, Sri Lanka

•**West and Central Africa:** Cameroon, Congo DR, Congo, Ghana, Mali, Niger, Nigeria, Senegal, Sierra Leone, Togo

*This research*

*“transformed the way UNICEF and many of its partners understood and measured the poverty suffered by children.... [It] has exposed policy-makers all over the world to a new understanding of child poverty and inequalities. As a consequence, children are more visible in poverty reduction policies and debates“*

(UNICEF Press Release 2009)

Researchers at UNICEF Office of Research (Innocenti) and at the University of Oxford (OPHI) drew upon this deprivation approach applied to DHS, MICS and similar survey data to produce multidimensional poverty measures i.e. Multiple Overlapping Deprivation Analyses (MODA) and Multidimensional Poverty Index (MPI)

## 1) A theory and definition of poverty which is universally applicable in all societies

Townsend's theory of poverty as relative deprivation is arguably applicable in all countries/societies

*“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” (Townsend, 1979, p 31)*

It is based upon the sociological idea that people in all societies have a range of both material and social needs which are universal e.g. food, water, shelter, education, meeting required social obligations, etc. and which require some resources e.g. income, credit, etc.

Although these needs are universal the way they are met will vary according to the society/culture.

# Universal Needs and Relative Deprivation Measurement of Poverty

## The key ideas

- Poverty is a sociological phenomena which can only be meaningfully measured relative to the society to which a person/household belongs.
- There are certain universal needs that people require/ think of as necessities in ALL societies e.g. food, clothing, shelter/housing, health care/medicine, children's education, leisure activities, social activities/obligations/participation such as present giving and marking major life events such as births, deaths, weddings, etc.
- Social deprivation/needs are as important, and in some societies more important, than many material needs.
- The exact way these universal needs are met varies from society to society but the needs remain universal

## Capability Poverty: The non-sociological problem

Sen argues that poverty is absolute in terms of capabilities but relative in terms of commodities, resources and incomes.

A fundamental problem with this argument is that it is non-sociological, it assumes that a person's capabilities and functionings (i.e. what they can do) can be determined and interpreted independently of the society in which they live.

It is hard to understand what Sen means when he argues that, in order to not be poor, there is an absolute requirement to have the capability not to be ashamed, that to be equally ashamed as the rest of the people in your society would be insufficient to avoid poverty.

This argument by Sen appears to have no real meaning! People feel ashamed because they are unable to meet their social obligations or perceive themselves to have broken the rules of their culture/society i.e. the concept of shame has no meaning independent of a person's relationships and interactions with others.

# Scientific Definitions of Poverty

Poverty can be defined as;

*Command over insufficient resources over time*

The result of poverty is *deprivation*

# Indirect Vs Direct Definitions of 'Poverty

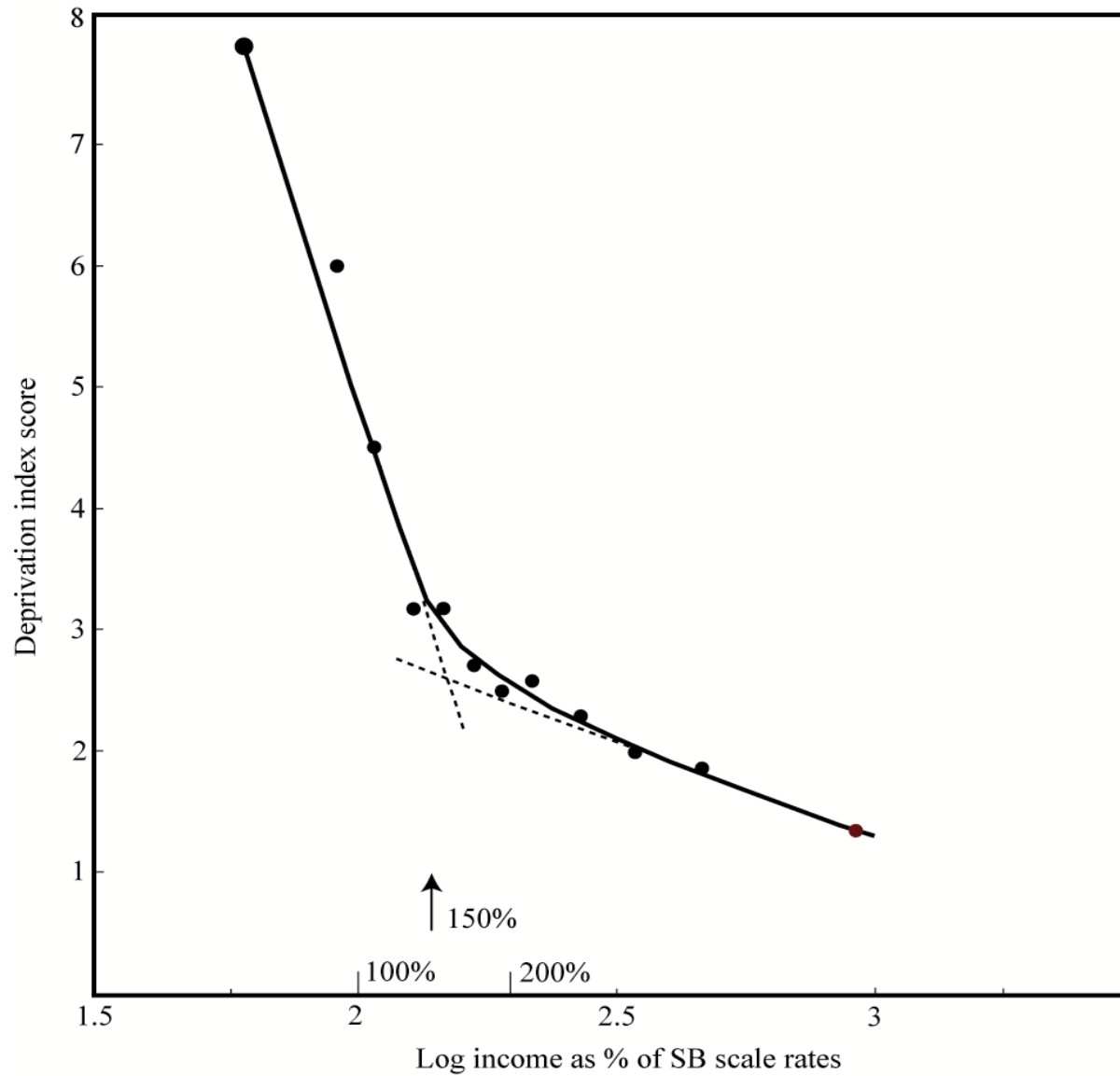
<b>Process</b>	<b>Lack of Resources</b>	<b>Exclusion for Minimum Way of Life</b>
Townsend (1954, 1962) Interpretation	Poverty	Outcome of Poverty
Ringen (1988) Interpretation	Cause of Poverty	Poverty



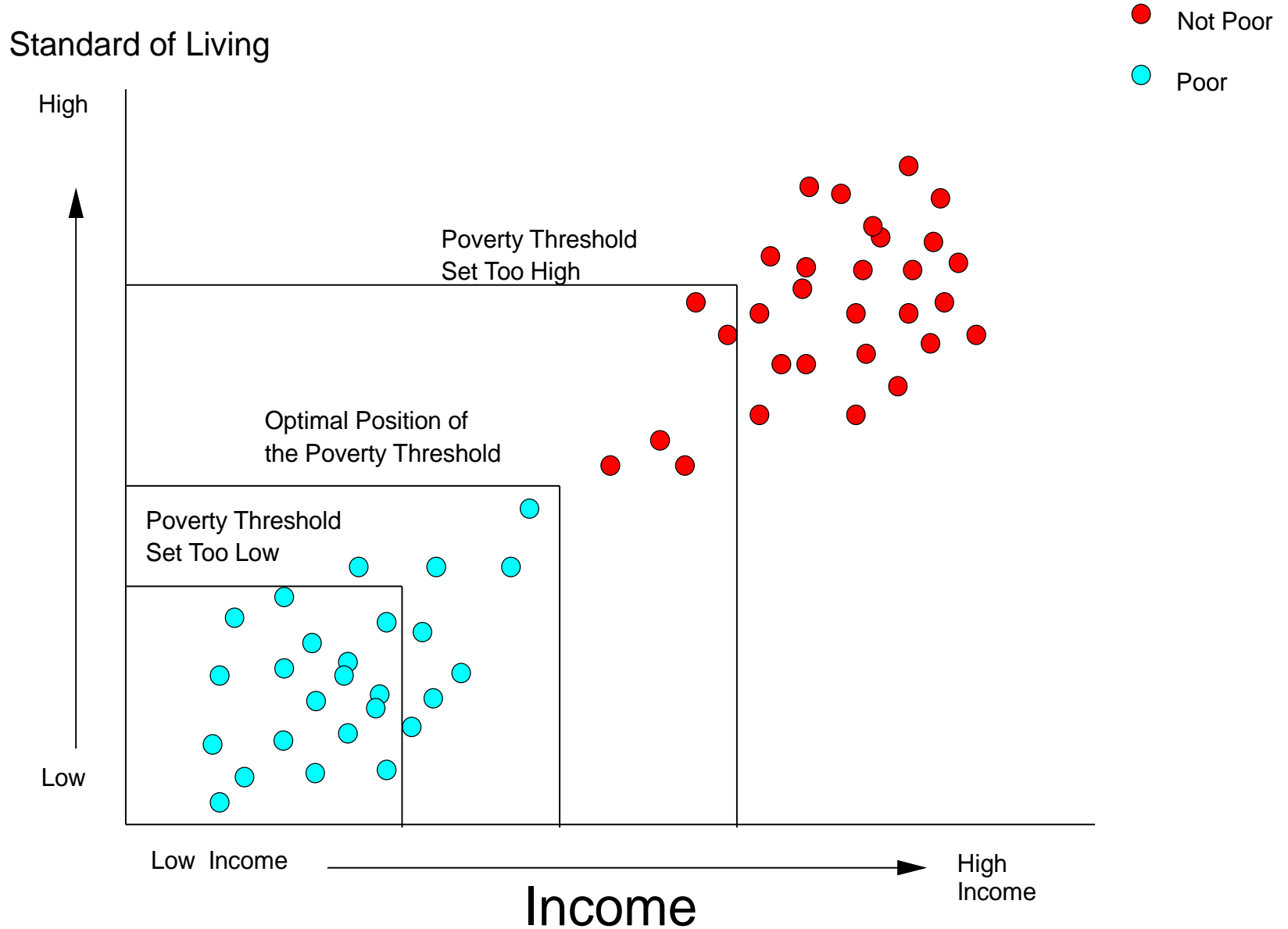
# Townsend's Deprivation Indicators, 1968-9

Indicators	% of lacking
Has not had a cooked breakfast most days of the week	67
Did not have a party on the last birthday (under 15 only)	57
Has not had a week's holiday away from home in last 12 months	54
Had not had an afternoon/evening out for entertainment in last 2 weeks	47
Had not been out in the last 4 weeks to a relative or friend for a snack or meal (adults only)	45
Household does not have a refrigerator	45
Had not had a friend to play or a friend to tea in the last 4 weeks (under 15 only)	36
Has not had a relative or friend to the home for a meal or snack in the last 4 weeks (adults only)	33
Household does not usually give a Sunday roast (3 in 4 times)	26
Household does not have sole use of 4 amenities indoors (WC, sink, bath/shower, cooker)	21
Does not have fresh meat (including meals out) at least four days a week	19
Has gone through one or more days in the past fortnight without cooked meal	7

# Modal Deprivation by Logarithm of Income as a Percentage of Supplementary Benefit Scale Rates (Townsend, 1979)



# Definition of poverty



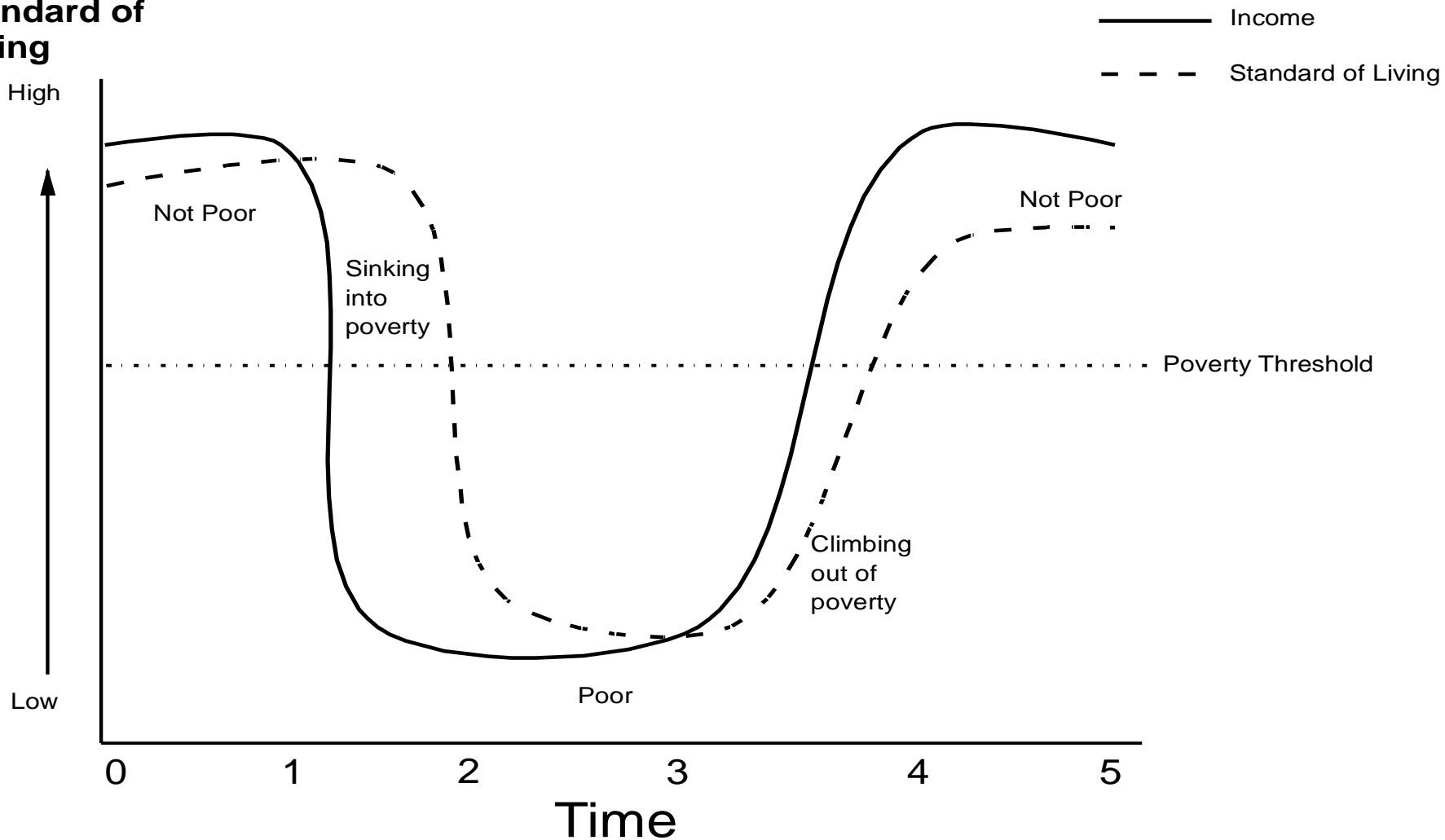
## **Peter Townsend's concept of dynamic poverty**

*“poverty is a dynamic, not a static concept...Our general theory, then, should be that individuals and families whose resources over time fall seriously short of the resources commanded by the average individual or family in the community in which they live . . . are in poverty.”*

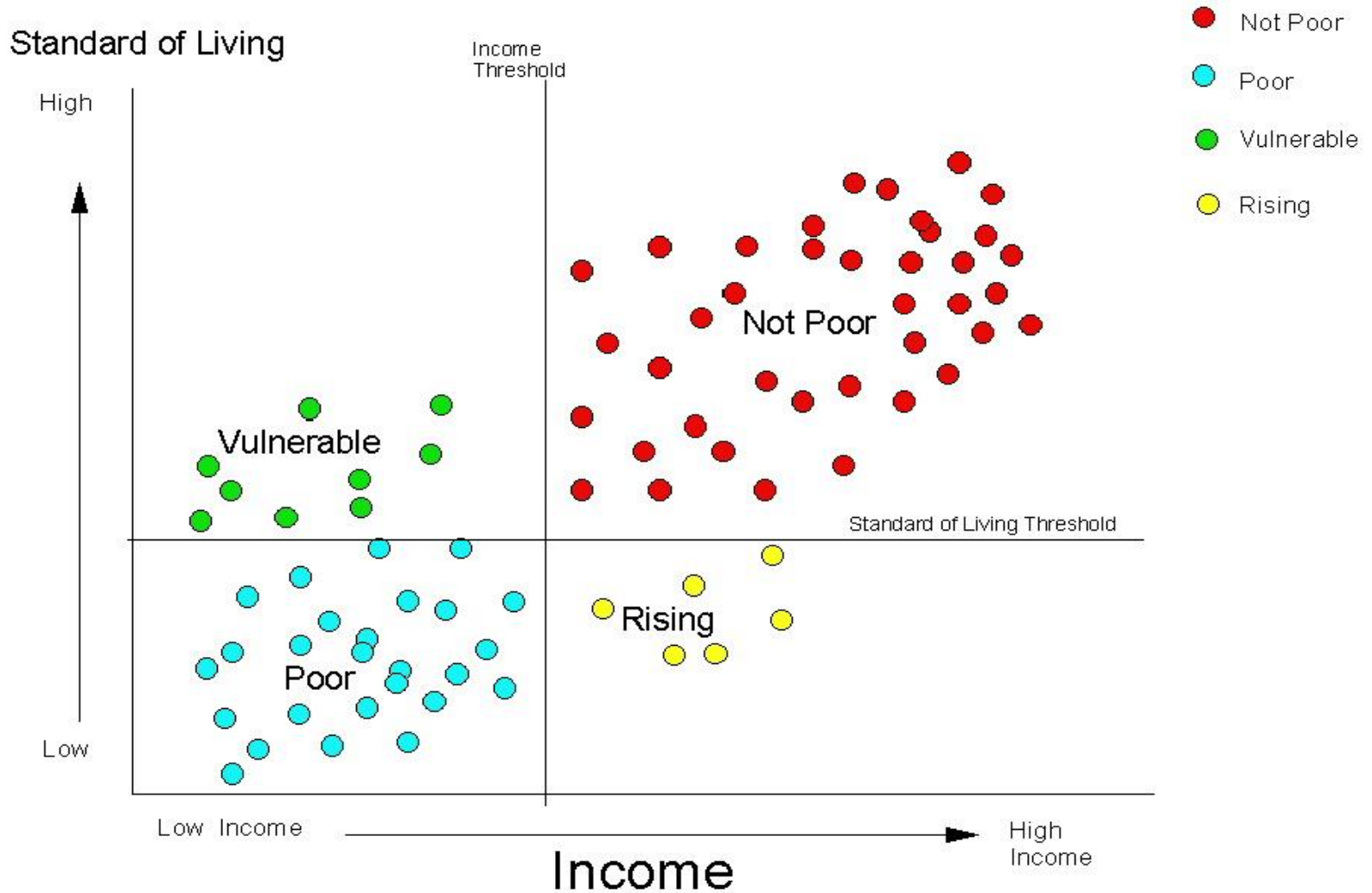
Townsend (1962, p 219)

# Theoretical model of the dynamics of poverty in rich societies

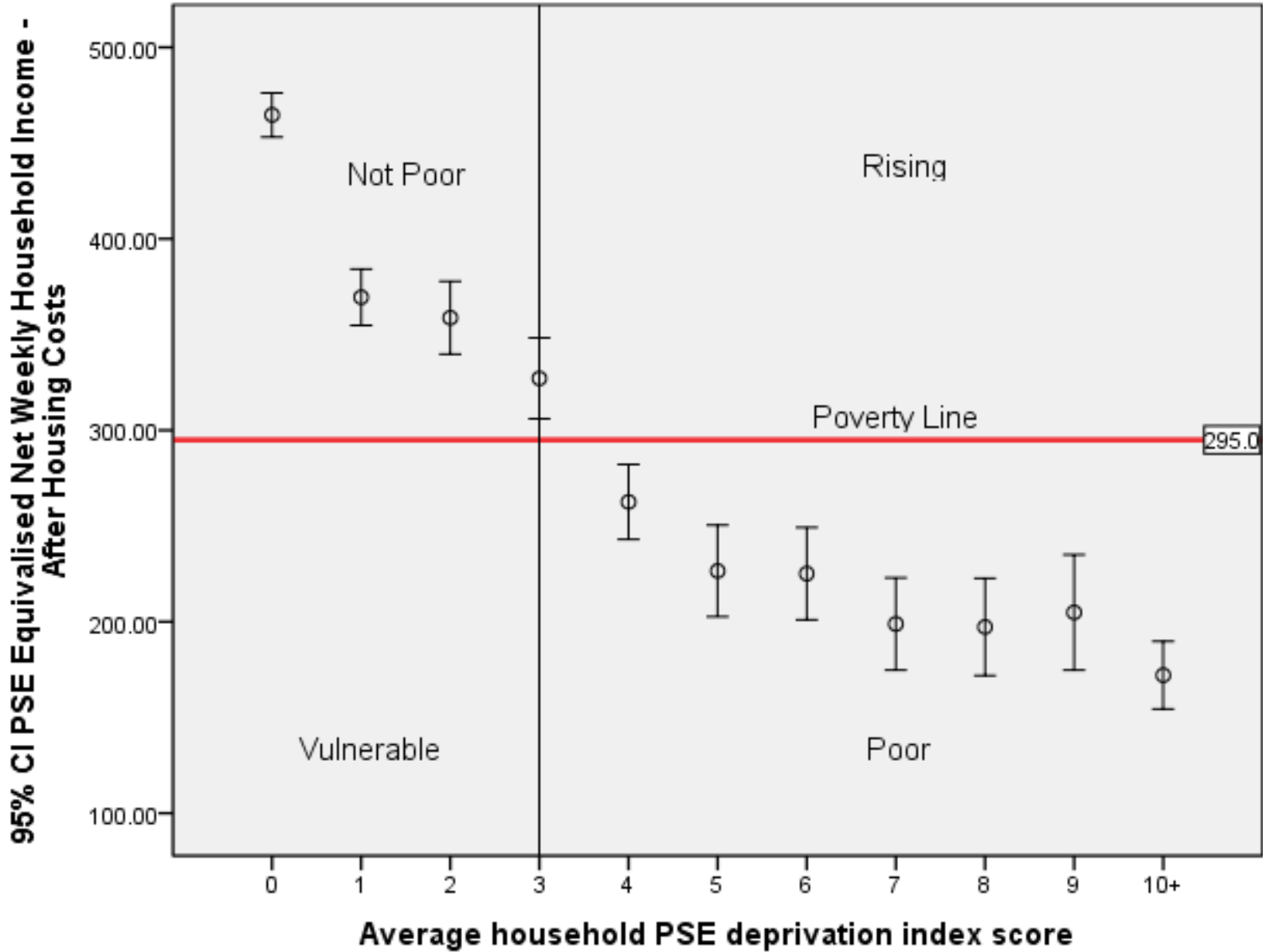
**Income and  
Standard of Living**



# Poverty Groups



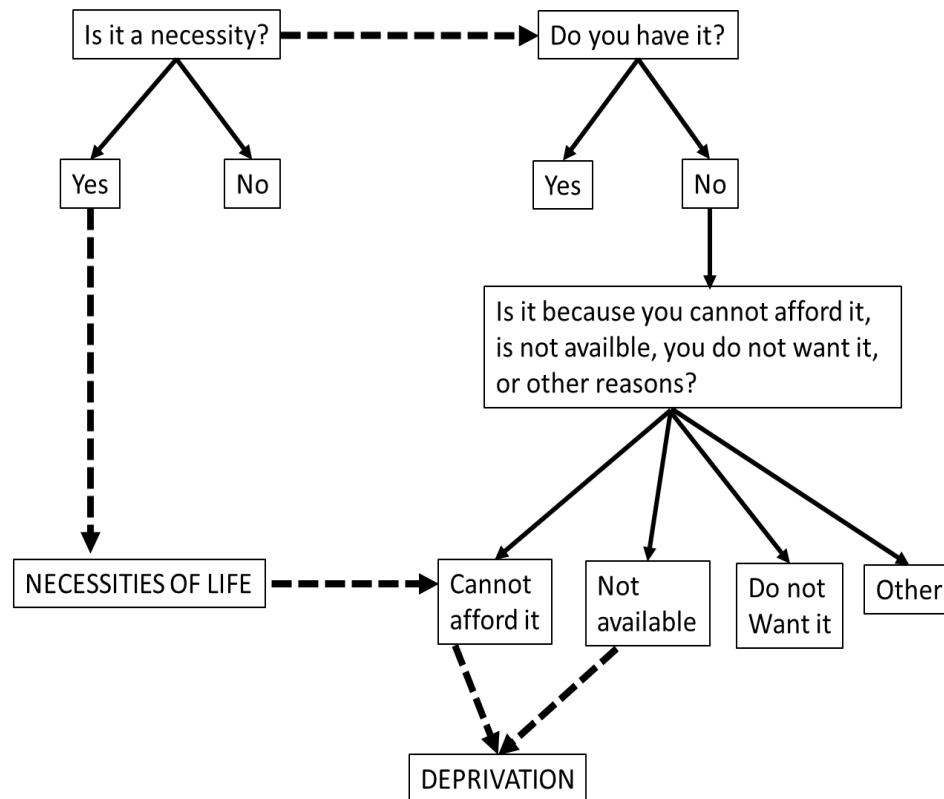
# Error Bar Plot of Average Household Deprivation by PSE Equivalised Income (AHC)



Cases weighted by normalised UK household weight - use this weight for household data

## 2) A method which automatically adapts to measure the realities of the lives of poor people in the country/society where they live.

The consensual deprivation method only defines a person as deprived if they cannot afford a possession/activity/service because they cannot afford it and the majority of the population in that society believe that these possessions and activities are necessities which everyone should be able to afford/have in their society. Thus the consensual deprivation method automatically adapts to cultural/social norms.





# Consensual Approaches to Poverty

The ‘consensual’ approach to poverty measurement pioneered by Mack & Lansley aimed to:

*“discover whether there is a public consensus on what is an unacceptable standard of living for Britain in 1983 and, if there is a consensus, who, if anyone, falls below that standard. The idea underlying this is that a person is in ‘poverty’ when their standard of living falls below the minimum deemed necessary by current public opinion.”*

Joanna Mack and Stuart Lansley (1985) p50



## Method used to operationalise 'consensual poverty'

Three stages:

Step 1 – Defining necessities (majority vote)

Step 2 – Determine who experiences an enforced lack of socially perceived necessities

Step 3 – Determine the household income level at which people run the greatest risk of not being able to afford the socially perceived necessities

## Direct comparisons of child poverty in low, middle & high income countries : Uganda, Tonga & UK

Items for children	Uganda	Tonga	UK
	Percentage who can't afford item		
Three meals a day	48%	8%	1%
One meal with meat, fish or vegetarian equivalent daily		8%	3%
Enough beds for every child in the household	74%	11%	-
A suitable place to study or do homework <sup>2</sup>	45%	10%	5%
New properly fitting shoes <sup>1</sup>	71%	12%	4%
Some new not second-hand clothes	63%	15%	4%
All school uniform and equipment required <sup>3</sup>	38%	6%	-
Participate in school trips and school events that costs money	34%	11%	8%
Celebration on special occasions	70%	17%	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

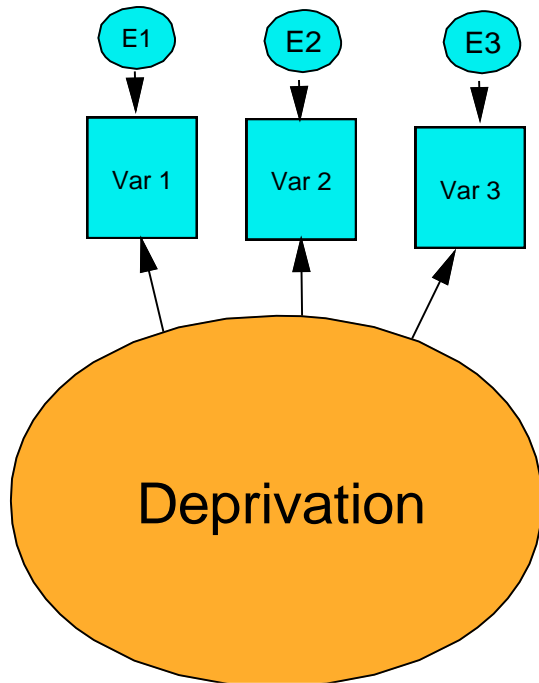
*Measuring poverty – the consensual approach*

**Setting a minimum acceptable way of life**

**The consensual method allows for measures that:**

- Go beyond income to look at deprivation ✓
- Reflect the experiences of the poor ✓
- 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 meaningful international comparisons ✓

**3) A method which can produce comparable estimates of the extent and depth of poverty even when the different questions/indicators are used in different countries and/or for different age groups e.g. children, working age adults, older people**



Deprivation and poverty are concepts (i.e. an idea). The statistical term for a concept is a Latent Variable, i.e. a concept/construct which cannot be measured directly but can be measured/estimated indirectly using indicators - data we can collect/observe on related variables.

This is a Reflective Measurement Model where the indicators are causally related to the latent variable, i.e. when the latent variable changes (e.g. poverty gets better or worse) then the indicators will change.

This approach has many useful properties, for example, the indicators are substitutable, it is not necessary to include all possible indicators to achieve a good measure of poverty and you do not need to use an identical set of indicators in each country/context, i.e. you can use the most appropriate set of indicators in each country and still achieve a comparable measurement of poverty

**A method which can produce comparable estimates of the extent and depth of poverty even when the different questions/indicators are used in different countries and/or for different age groups e.g. children, working age adults, older people**

Scale equating methods are used routinely by Exam Boards to ensure that grade boundaries are the same every year i.e. a student getting an 'A' in 2020 has a similar level of knowledge/competence to a student getting an 'A' grade in 2019 – even though the questions asked in the two exams were largely different.

Scale equating methods are also routinely used by international organisations to compare results across many countries – such as the OECD's PISA study, FAO Food Insecurity Experience Scale (FIES)

#### 4) A method which produces demonstrably valid/accurate and reliable/precise poverty measurement.

An analytical framework to produce suitable, valid and reliable deprivation index results has been discussed and endorsed by the European Statistical Office, the UN ECE, European Conference of Statisticians, UN Expert Group on Poverty Statistics (Rio Group) and the Pacific Methods Board.

The Consensual Method to measure poverty has been formally adopted by the European Union (28 Countries) and the Pacific Island Countries and Territories (PICTS) – 22 countries and territories - and has been used in many other countries across the World

		% Adults deprived			
		Tonga	Tuvalu	Solomon Islands	
Adults	Fruit and vegetables daily	13	14	-	
	Visit friends and family in hospital	13	15	51	
	Money to spend each week on self	12	15	30	
	Get together	12	8	37	
	Access to safe public transport	12	14	-	
	Replace worn out clothes	11	10	34	
	Presents once a year	10	13	42	
	Two meals a day	5	3	2	
	Clothes for special occasions	4	3	14	
	Two pairs of properly fitting shoes	2	7	37	
	A meal with protein weekly	1	1	-	
	Household	Enough money to replace worn out furniture	35	28	61
		Having own means of transport	32	22	61
Enough money to replace appliances		29	30	60	
Make regular savings		28	28	46	
Have all prescribed medicines		13	15	46	

# **Universal Poverty Measurement: Practice**



ISBN 977-0375

**eurostat**  
Methodologies and  
Working papers

## Measuring material deprivation in the EU

Indicators for the whole population and child-specific indicators

2012 edition

**eurostat**   
EUROPEAN COMMISSION

*‘The work is considered technically as providing a "gold standard" for the list of MD variables and indicator's construction and has unanimous support’*

Eurostat Task Force  
on Material  
Deprivation (2011)

# Selecting the Deprivation Indicators

To identify an optimal deprivation index;

Each index needs to be;

Suitable – A majority of the population (50% or more) saying that each item is a necessity which everybody should be able to afford  
i.e. a ‘customary’ possession or activity in the society

Validity – Logistic Regression of each deprivation indicator by *a priori* predictors of poverty e.g. Subjective Poverty, Debt, Occupational Class

Reliability – Classical Test Theory & Latent Trait Models (Cronbach’s alpha, beta, lambda, omega, Item Response Theory)

Additivity – checking that someone with a deprivation index score of 2 is in reality suffering from more severe deprivation than someone with a score of 1, i.e. that the deprivation index components add up. [ANOVA model, second order interactions of deprivation items by equalised disposable household income.]

A common analytical framework was agreed based on an updating of the 1999 & 2012 Poverty & Social Exclusion Survey deprivation index construction methodology (Pantazis *et al*, 2006).

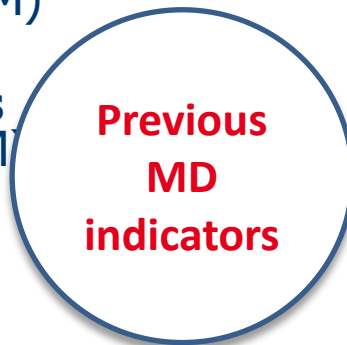
# EU-SILC: 50 potential indicators of Deprivation

## Child Deprivations

Some new clothes (M)  
Two pairs of shoes (M)  
Fresh fruits & vegetables daily (M)  
Three meals a day (M)  
Meat, chicken, fish daily (M)  
Suitable books (M)  
Outdoor leisure equipment (M)  
Indoor games (M)  
Place to do homework (M)  
Dentist when needed (M - optional)  
GP when needed (M - optional)  
Leisure activities (M)  
Celebrations (M)  
To invite friends (M)  
School trips (M)  
Outdoor space to play (M)  
Holiday (M - optional)

## Housing Deprivations

No hot running water (M)  
Shortage of space  
Darkness  
Leaky roof, damp, etc.  
No toilet  
No bath  
Overcrowding  
High housing costs



## Local Environment Deprivations

Litter lying around (M)  
Vandalism (M)  
Diff access to public transport (M)  
Diff access to post, banks (M)  
Noise  
Pollution  
Crime

## Adult Deprivations (enforced lack)

Some new Clothes (M)  
Two pairs of shoes (M)  
Some money for oneself (M)  
Mobile phone (M)  
Drink/meal monthly (M)  
Leisure activities (M)

## Household Deprivations

Incapacity to keep home warm

Arrears

Incapacity to face unexp. expenses

Lack of meat, chicken, fish

Lack of Holiday

Enforced lack of :

Telephone

Colour TV

Washing machine

Car

Internet (M) & Computer

Worn-out furniture (M)

# Final list: **13** items have successfully passed all five tests

## Child Deprivations

~~Some new clothes (M)~~  
~~Two pairs of shoes (M)~~  
~~Fresh fruits & vegetables daily (M)~~  
~~Three meals a day (M)~~  
~~Meat, chicken, fish daily (M)~~  
~~Suitable books (M)~~  
~~Outdoor leisure equipment (M)~~  
~~Indoor games (M)~~  
~~Place to do homework (M)~~  
~~Dentist when needed (M - optional)~~  
~~GP when needed (M - optional)~~  
~~Leisure activities (M)~~  
~~Celebrations (M)~~  
~~To invite friends (M)~~  
~~School trips (M)~~  
~~Outdoor space to play (M)~~  
~~Holiday (M - optional)~~

## Housing Deprivations

~~No hot running water (M)~~  
~~Shortage of space~~  
~~Darkness~~  
~~Leaky roof, damp, etc.~~  
~~No toilet~~  
~~No bath~~  
Overcrowding  
High housing costs



Revised MD  
indicators

## Local Environment Deprivations

~~Litter lying around (M)~~  
~~Vandalism (M)~~  
~~Diff access to public transport (M)~~  
~~Diff access to post, banks (M)~~  
Noise  
Pollution  
Crime

## Adult Deprivations (enforced lack)

Some new Clothes (M)  
Two pairs of shoes (M)  
Some money for oneself (M)  
~~Mobile phone (M)~~  
Drink/meal monthly (M)  
Leisure activities (M)

## Household Deprivations

Incapacity to keep home warm  
Arrears  
Incapacity to face unexp. expenses  
Lack of meat, chicken, fish  
Lack of Holiday

Enforced lack of :

Telephone  
Colour TV  
Washing machine  
Car  
Internet (M) & Computer  
Worn-out furniture (M)

## European Union Two Official Child Deprivation Measure March 2018

### 17 deprivation items (13 Child specific items and 4 household items)

1. Child: Some new clothes
2. Child: Two pairs of shoes
3. Child: Fresh fruits & vegetables daily
4. Child: Meat, chicken, fish daily
5. Child: Books at home suitable for ages
6. Child: Outdoor leisure equipment
7. Child: Indoor games
8. Child: A suitable place to do homework
9. Child: Leisure activities (e.g. swimming, music, etc.)
10. Child: Celebrations on special occasions
11. Child: Invite friends round to play & eat occasionally
12. Child: School trips that cost money
13. Child: Holiday one week a year
14. Household: Worn-out furniture
15. Household: Arrears
16. Household: Computer/internet
17. Household: Car

#### Definition:

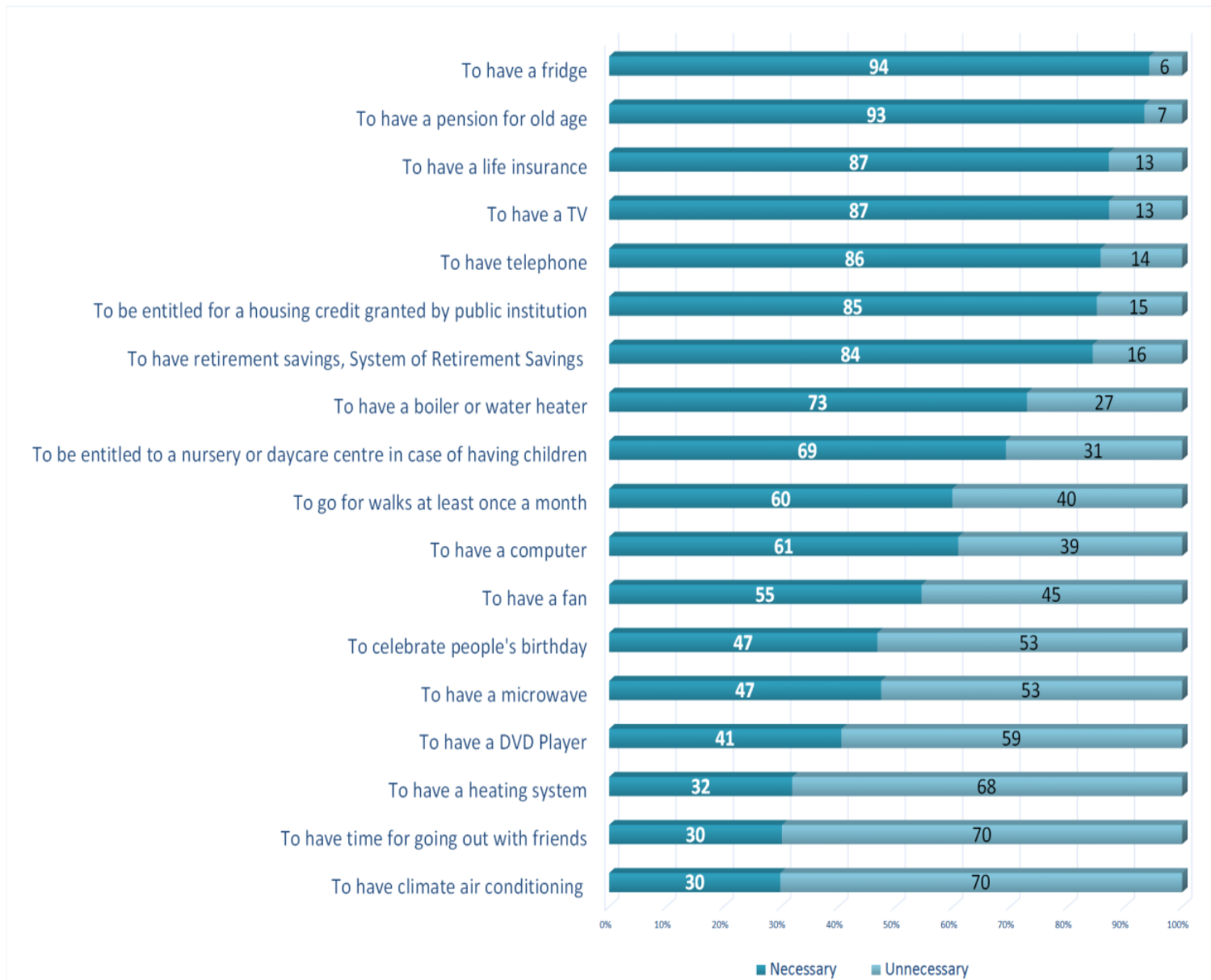
1. The **child deprivation rate** is the percentage of children aged between 1 and 15 years who suffer from the enforced lack of at least three items out of the list of 17 (unweighted) deprivations:
2. The **child deprivation intensity** is the average number of enforced lacks among children deprived, i.e. among children lacking at least three items out of the list of 17 (unweighted) deprivations

# **Establishing Consensus**

# Uganda National level, headline results

	Essential	Desirable but not essential	Neither
A visit to a health facility when ill	97%	3%	0%
Two sets of clothing	92%	8%	0%
Toiletries to be able to wash every day	90%	9%	0%
Three meals a day	90%	10%	0%
All fees, uniform of correct size	90%	10%	0%
Own blanket	83%	17%	0%
Two pairs of properly fitting shoes	83%	17%	0%
Own room for children over 10 of different sexes	80%	17%	3%
Books at home suitable for their age	77%	23%	0%
Own bed	76%	24%	0%
Some new clothes (not second hand)	72%	27%	1%
Being able to participate in school trips	64%	33%	3%
Bus/taxi fare or other transport	62%	33%	5%
Educational toys and games	61%	36%	4%
Presents for children once a year on special occasions	59%	34%	7%
A desk and chair for homework for school	54%	40%	6%
<b>Some fashionable clothes for Sec. sch. age children.</b>	<b>44%</b>	<b>38%</b>	<b>18%</b>
<b>Own cell phone for secondary school aged children</b>	<b>19%</b>	<b>38%</b>	<b>43%</b>

# The Necessities of Life in Mexico in 2007



Source: Yedith Guillén-Fernández (2017) *Multidimensional poverty measurement from a relative deprivation approach*, PhD thesis, University of Bristol, analyses of the EDUMP 2007 survey.

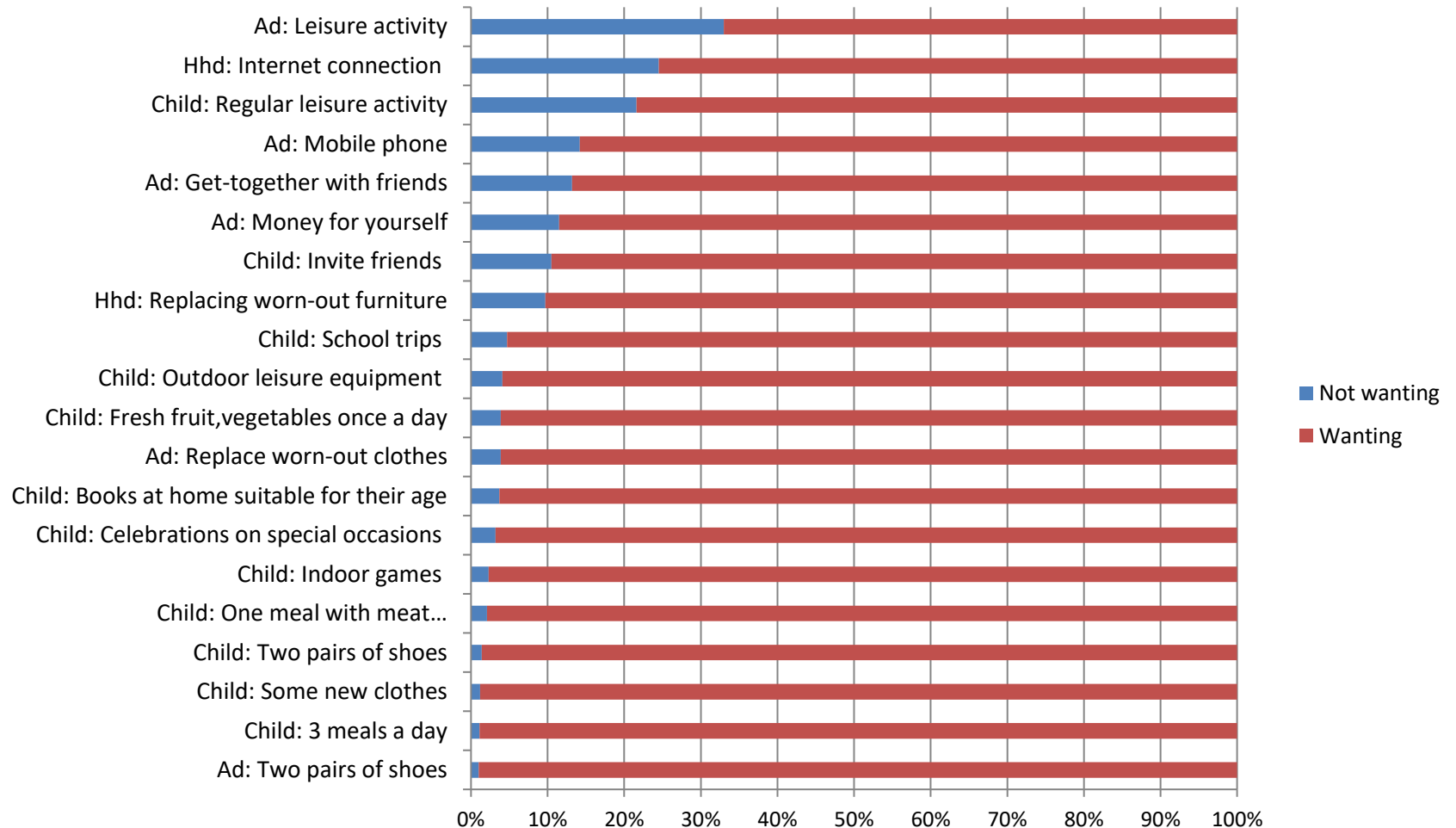


## SUITABILITY: WANTING – NOT WANTING

### Goals:

1. Assess the degree of "importance" of each item at EU and country level;
2. test the homogeneity of preferences between countries (national preferences), within the EU;
3. Test the homogeneity of preferences between groups, within each country.

## % OF PERSONS LIVING IN HOUSEHOLDS (NOT) WANTING THE ITEM, EU27



## HOMOGENEITY OF PREFERENCES : (NOT) WANTING BY SUB-GROUPS

### Characteristics tested:

- Age
- Sex
- Household type
- Density of population
- Country of birth
- Education
- MD
- Income poverty

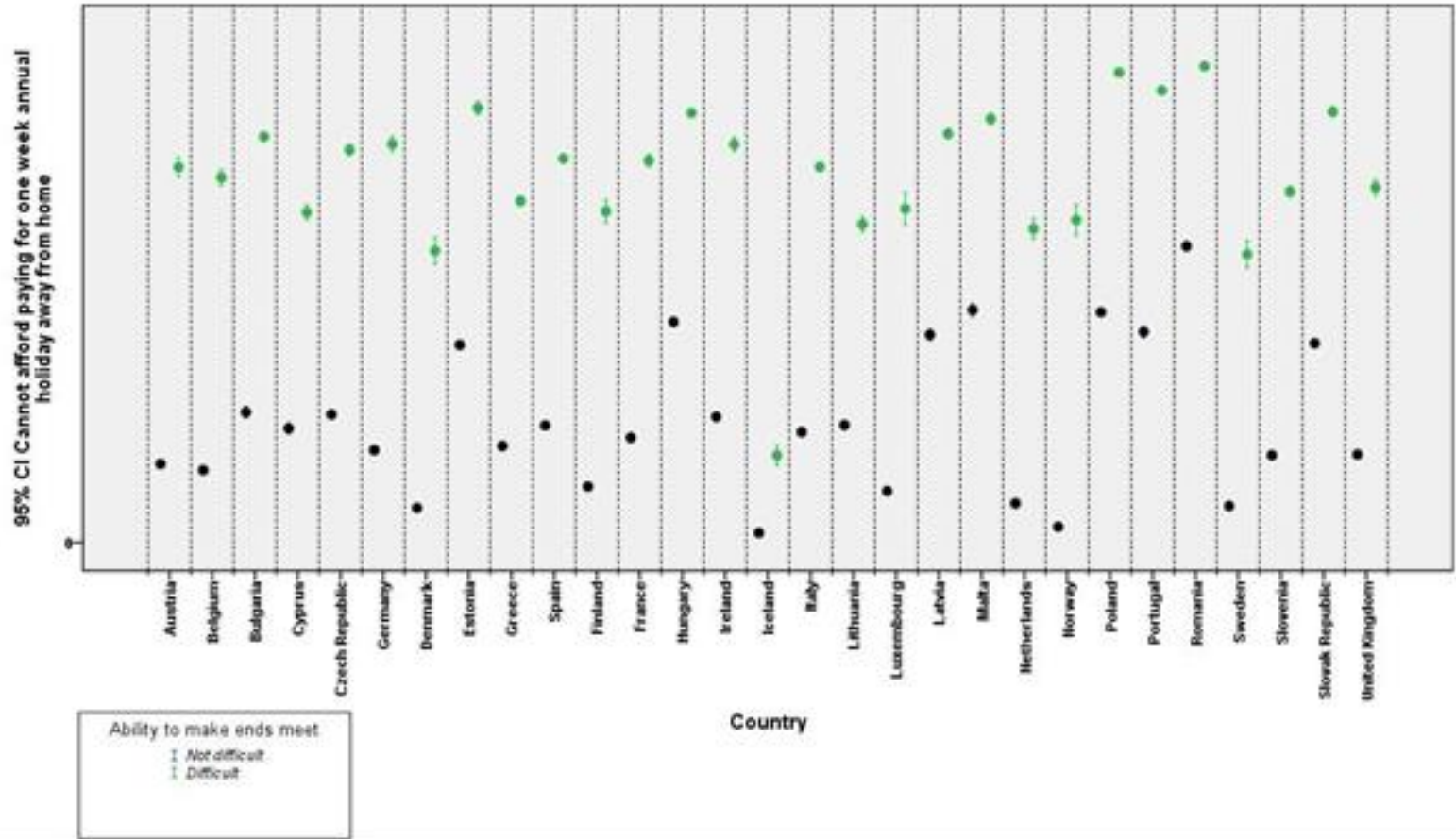
For each item  
BY country

Validity

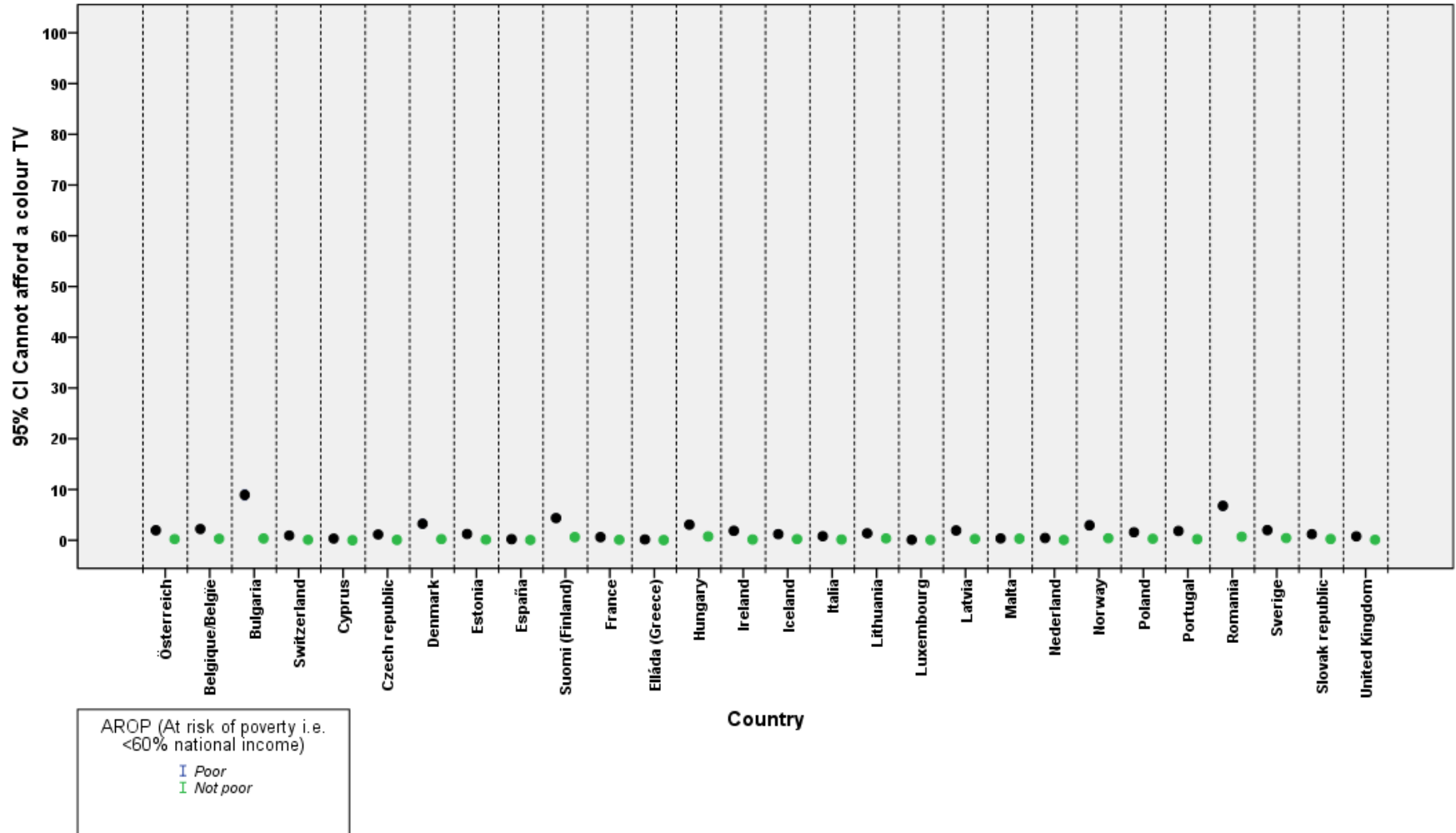
## VALIDITY

- Validity tests aim at checking whether or not an individual MD item exhibits statistically significant relative risk ratios with a set of independent variables known to be correlated with MD:
  - at-risk-of-poverty;
  - subjective poverty; and
  - health status (controlling for age and gender).
- Logistic regressions.
- Successful if validity problems observed for max. 2 countries.
- Illustration...

## VALIDITY – HOLIDAYS / DIFFICULTIES IN MAKING ENDS MEET



# Error Bar Plots: % Cannot Afford a Colour TV by AROP



## Validity – Problematic items

- Basic amenities,
  - Shortage of space, Overcrowding
  - Local environment, Darkness
  - High housing costs
  - Washing machine, TV, telephone (enforced lack)
  - Accessibility (Public transport, Postal/banking services)
- + some children items (but in less than 5 MS).



# Reliability: Classical Test Theory

14 items failed the reliability test:

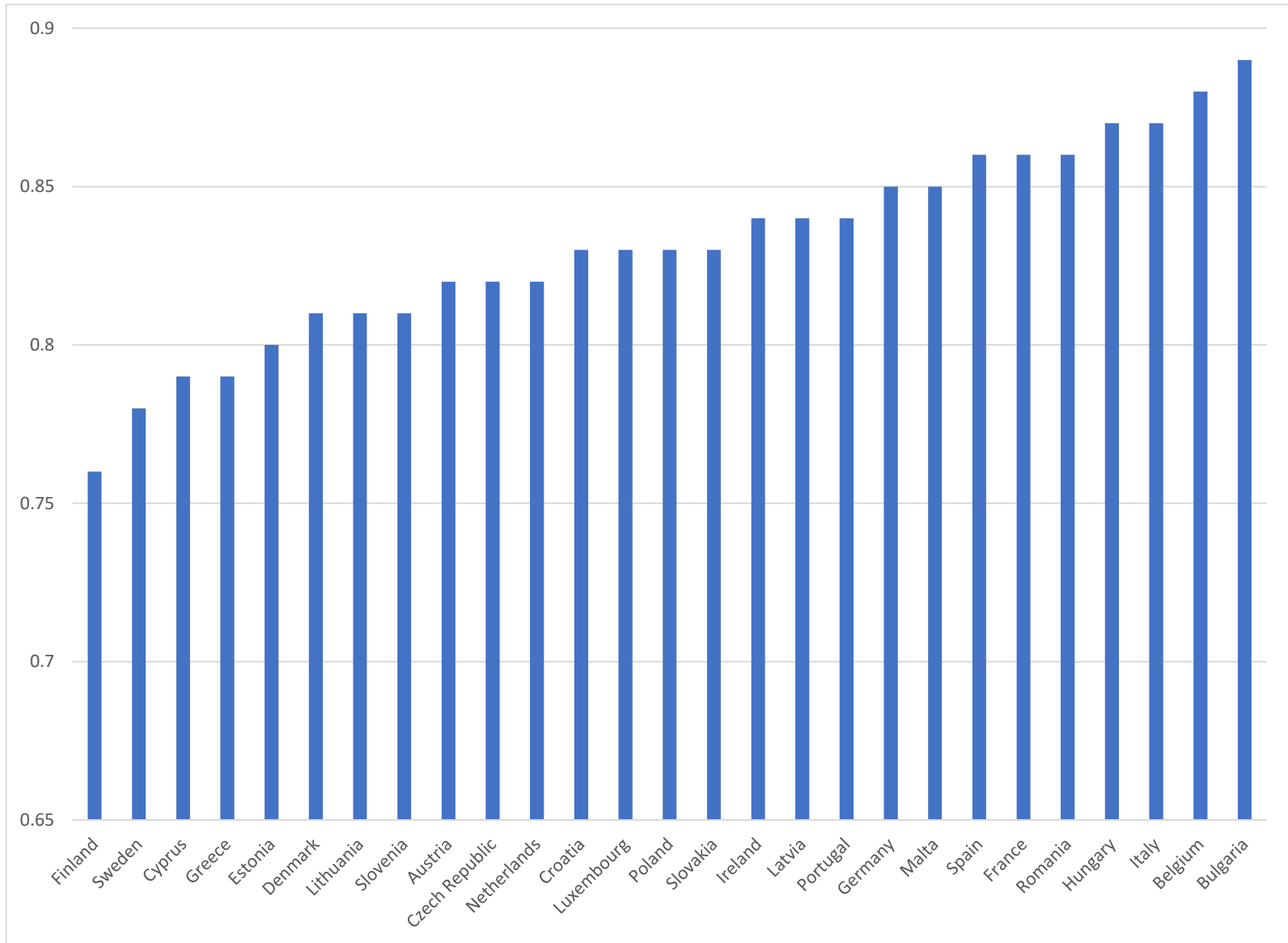
- Some basic durables (TV, telephone, washing machine) and basic commodities (toilet, hot running water, bath);
- the two items related to problems of accessibility, i.e. access to postal/banking services and to public transport;
- items which measure local environment problems (crime, noise, pollution, litter lying around, vandalism);
- three important items related to housing: overcrowding, dark dwelling and high housing costs.

This pattern is very consistent across countries. The number of reliable items per country does not vary much (between 21 (PL) and 27 (BE, CY, FI); 22 at EU level) and the reliability problems tend to occur repeatedly with the same items.

Reliable for all age groups:

- 1-15→ 0.86
- 16-64→ 0.85
- 65+→ 0.83

# Reliability: Chronbach's Alpha EU28 in 2014



# Reliability of the MPI-LA in Six Countries

Country	$\alpha$	$\beta$
Argentina 2005	0.57	0.10
Argentina 2012	0.52	0.25
Bolivia 2003	0.62	0.54
Bolivia 2011	0.61	0.37
Brazil 2005	0.60	0.24
Brazil 2011	0.58	0.34
Chile 2003	0.61	0.53
Chile 2011	0.42	0.31
Mexico 2004	0.65	0.08
Mexico 2012	0.63	0.20
Uruguay 2005	0.65	0.49
Uruguay 2012	0.56	0.41

Alpha should be above 0.7  
Beta should be above 0.5

**The MPI-LA is not a reliable measure in any country tested.**

80% of the regions population live in these six countries.

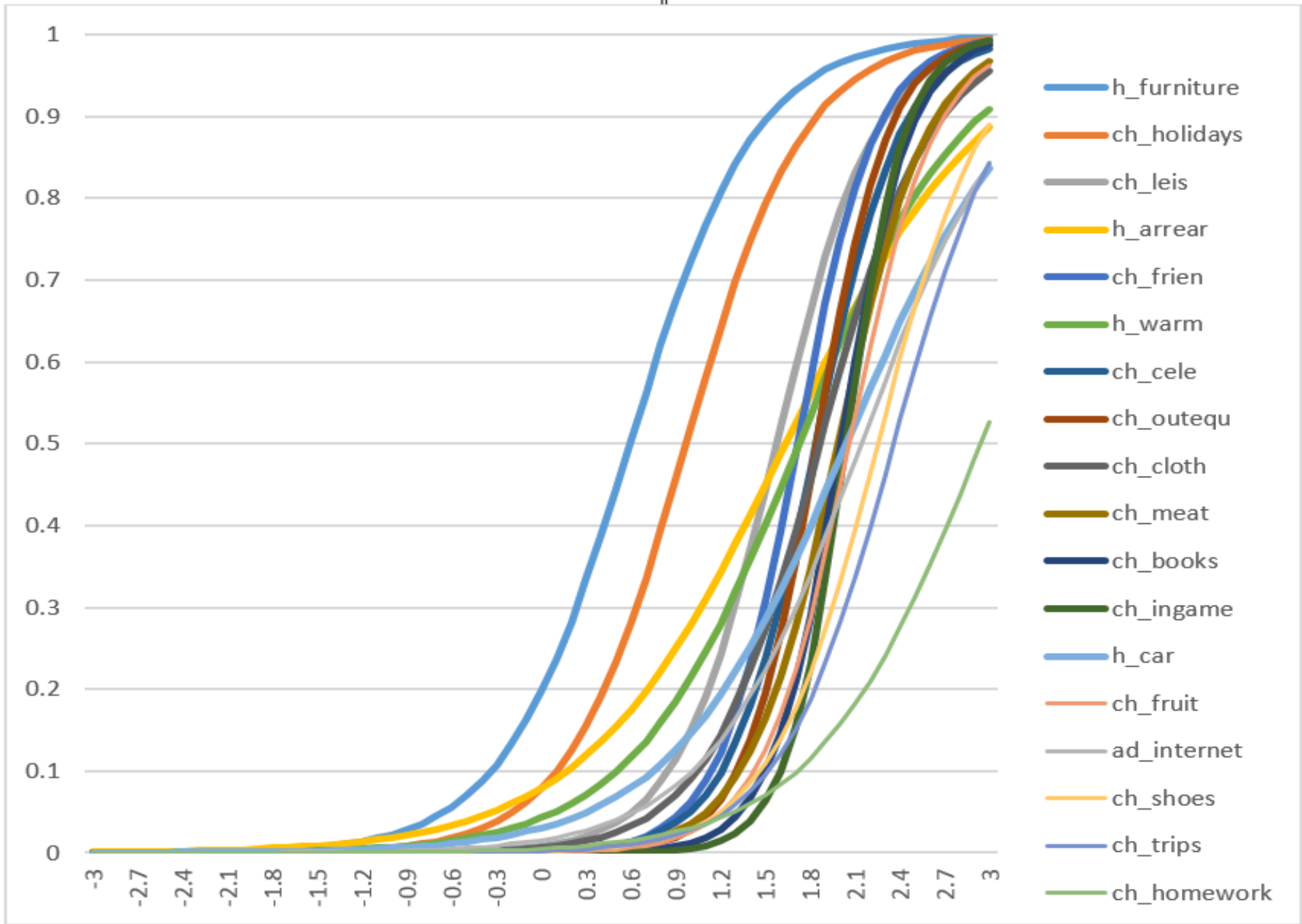
Table 2

*Alphas and Precision Estimates for Scales With Different Numbers of Dimensions, Different Numbers of Items, and Varying Average Intercorrelations*

No. of items	Average item intercorrelation					
	$r = .30$		$r = .50$		$r = .70$	
	$\alpha$	Precision	$\alpha$	Precision	$\alpha$	Precision
One dimension						
6	.72		.86		.93	
12	.84		.92		.96	
18	.88		.95		.98	
Two dimensions						
6	.45	.04	.60	.07	.70	.09
12	.65	.02	.78	.03	.85	.04
18	.75	.01	.85	.02	.90	.03
Three dimensions						
6	.28	.03	.40	.05	.49	.08
12	.52	.02	.65	.03	.74	.04
18	.64	.01	.76	.02	.84	.02

*Note.* Because the scales with one dimension are absolutely unidimensional, precision = 0 for all of them.

# Item Response Theory Analyses – EU-SILC 2014

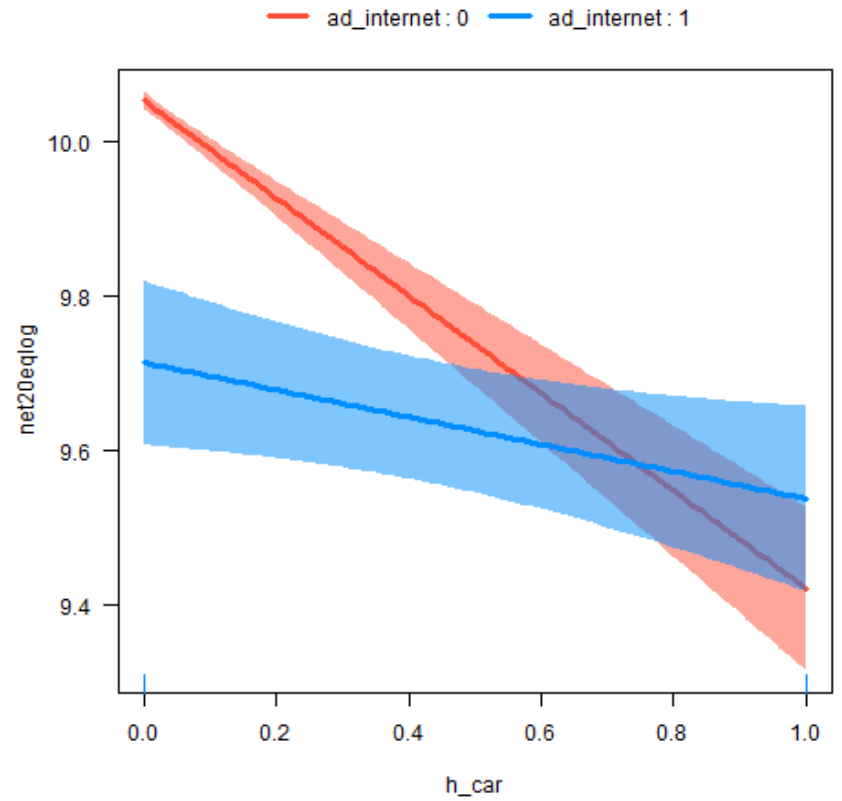
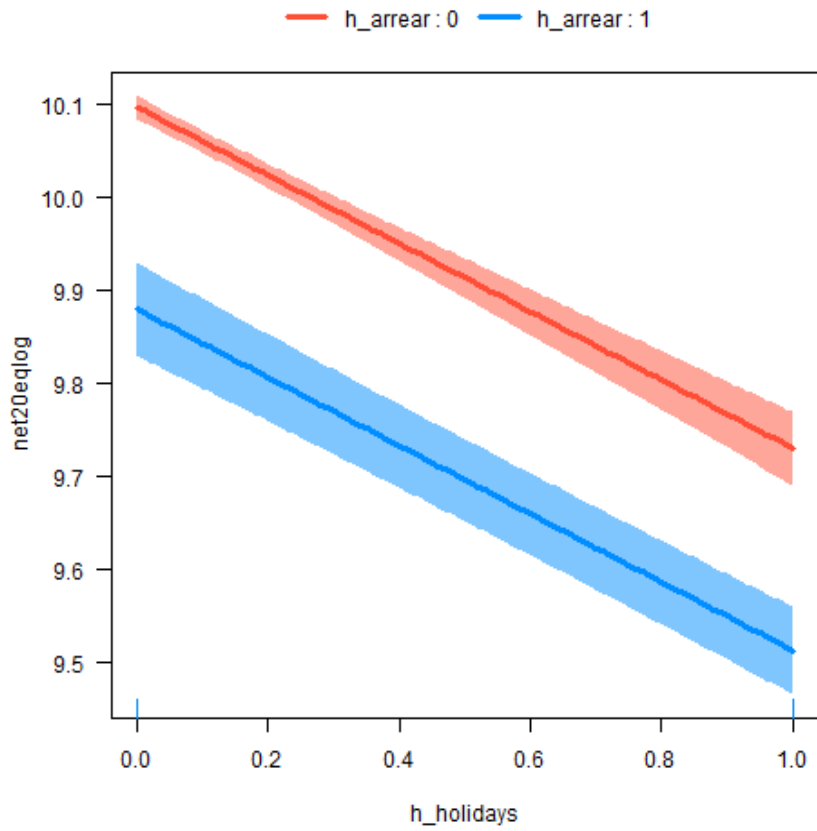


Source: EU-SILC 2014 Cross-Sectional data, authors' computation.

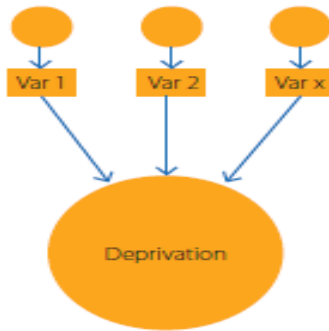
## Uganda 2019/20: IRT severity and discrimination scores for children and household deprivations

Children and household items		severity	Discrimination
<b>1</b>	<b>Household: to have own means of transport</b>	<b>-1.26</b>	<b>0.20</b>
<b>2</b>	Child: Own bed	-0.38	0.55
<b>3</b>	Household: enough money to repair or replace worn-out furniture	-0.23	0.47
<b>4</b>	Child: Two pairs of properly fitting shoes	-0.22	0.51
<b>5</b>	Child: Books at home for their age	-0.21	0.49
<b>6</b>	Child: Own blanket	-0.17	0.60
<b>7</b>	Child: Some new clothes	-0.01	0.44
<b>8</b>	<b>Household: to be able to make savings for emergencies</b>	<b>0.13</b>	<b>0.39</b>
<b>9</b>	Child: bus/taxi fare or other transport	0.19	0.54
<b>10</b>	Child: a desk and chair for homework	0.20	0.61
<b>11</b>	Child: to be able to participate in school trips	0.28	0.71
<b>12</b>	Household: enough money to replace broken pots and pans	0.32	0.53
<b>13</b>	Household: enough money to repair a leaking roof for main living	0.33	0.49
<b>14</b>	<b>Child: Three meals a day</b>	<b>0.48</b>	<b>0.36</b>
<b>15</b>	Child: all school fees, uniforms of correct size and equipment	0.70	0.66
<b>16</b>	Child: A visit to health facility when ill and all prescribed medication	0.84	0.43
<b>17</b>	Child: Toiletries to be able to wash everyday	0.95	0.41
<b>18</b>	<b>Household: enough money to repair or replace electronic goods</b>	<b>1.11</b>	<b>0.16</b>
<b>19</b>	<b>Child: own room for children over 10 of different sexes</b>	<b>1.79</b>	<b>0.28</b>
<b>20</b>	<b>Child: Two sets of clothing</b>	<b>2.62</b>	<b>0.29</b>

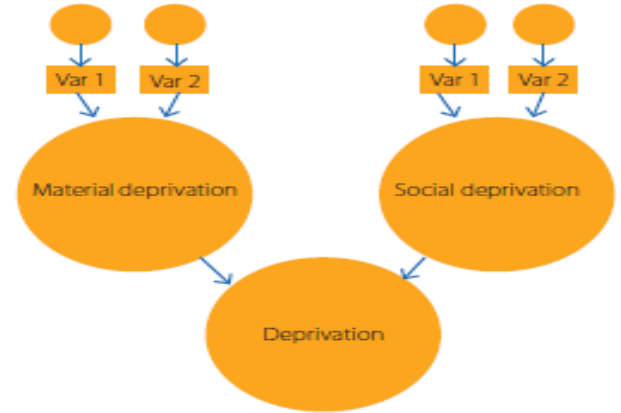
# Additivity Analyses



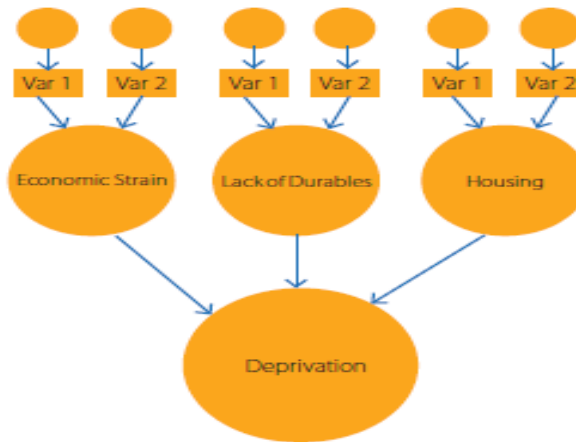
### 1. Null Model



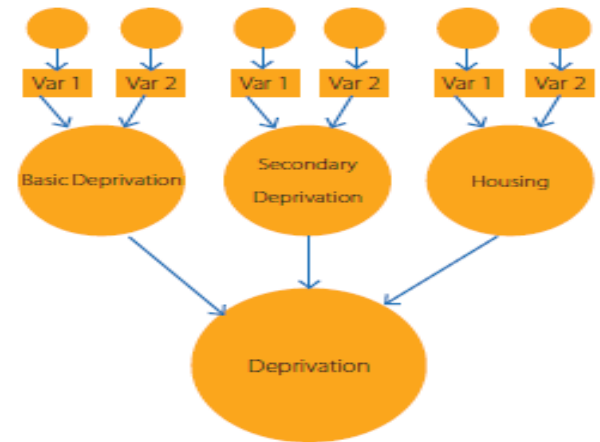
### 2. Townsend/PSE (simplified) Model



### 3. Empirical Model



### 4. ESRI Model

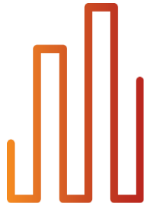


#### Omega statistics using measurement models

	Omega	Omega_h	BIC
Unidimensional	0.95	0.95	4613267
Townsend	0.94	0.64	4708170
Empirical	0.91	0.71	4717885
ESRI Model	0.87	0.74	4711749

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

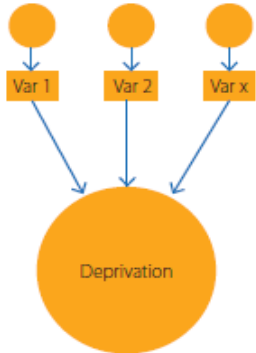




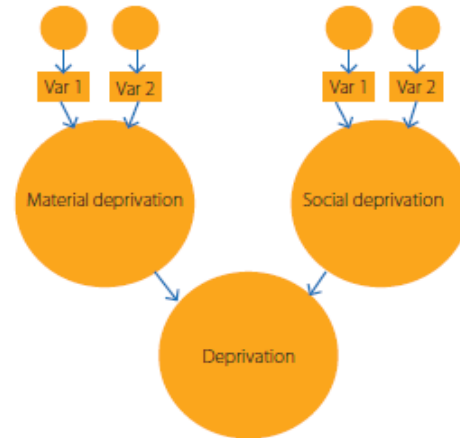
# IMPORTANT QUESTIONS:

## 1. UNI- OR MULTIDIMENSIONALITY?

1. Null Model



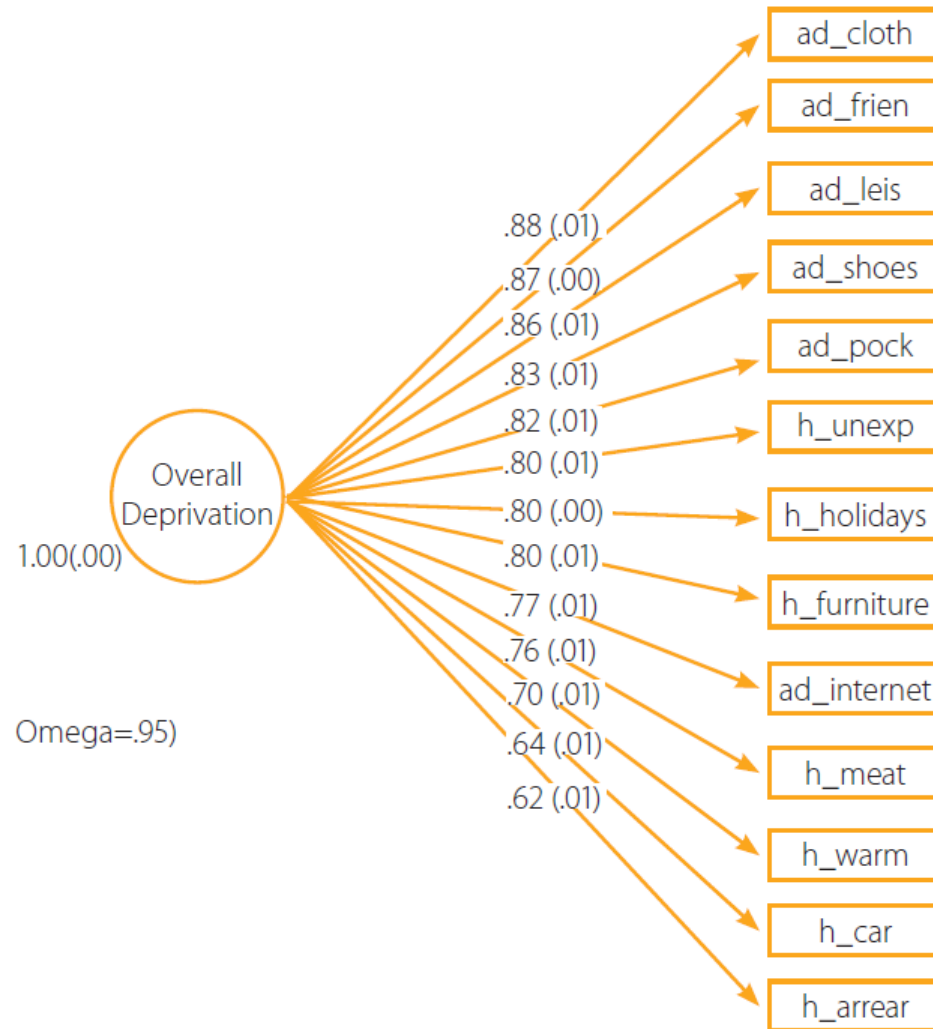
2. Townsend/PSE (simplified) Model



	Null (Unidimensional)		Townsend (Two sub-dimensions)		
	Omega	BIC	Omega	Omega_h	BIC
<b>EU-28</b>	0.97	2968276	0.96	0.65	2995327
<b>Austria</b>	0.97	36513	0.95	0.64	36672
<b>Belgium</b>	0.98	54206	0.97	0.66	55170
<b>Bulgaria</b>	0.97	121397	0.96	0.66	123148
<b>Cyprus</b>	0.97	74146	0.95	0.64	74961
<b>Germany</b>	0.97	80486	0.96	0.65	80840
<b>Estonia</b>	0.97	63526	0.96	0.65	63475
<b>Greece</b>	0.96	159340	0.95	0.65	160420
<b>Spain</b>	0.98	165461	0.97	0.66	167869
<b>Finland</b>	0.98	56505	0.97	0.66	56843
<b>France</b>	0.97	98798	0.96	0.65	99671
<b>Croatia</b>	0.98	74733	0.97	0.66	75166
<b>Hungary</b>	0.97	165523	0.97	0.65	167176
<b>Lithuania</b>	0.97	69019	0.96	0.65	69735
<b>Luxembourg</b>	0.98	23481	0.97	0.66	23892
<b>Latvia</b>	0.97	98751	0.96	0.65	99357
<b>Netherlands</b>	0.96	50871	0.96	0.65	51623
<b>Romania</b>	0.96	196129	0.94	0.66	198337
<b>Slovakia</b>	0.97	84723	0.96	0.65	85340
<b>UK</b>	0.96	107076	0.95	0.64	107615

The unidimensional model has the best fit

Correlation  
between each MSD  
indicator and the  
latent variable  
'overall deprivation'  
at EU level (2014  
EU SILC)



## Measurement Invariance or Equivalence

It is important to show that the MSD index is measurement equivalent/invariant in EU member states i.e. that a deprivation index score of 4 measures the same severity and concept of deprivation in both Belgium and Bulgaria (and in all other EU countries). There are different kinds (degrees) of measurement invariance:

- 1) Configural – this means that that respondents in different countries/population groups attributed the same meaning to the concept of deprivation and that the indicators measure deprivation in a similar but possibly not in an identical manner.
- 2) Metric – this means that in each country the deprivation index measures the same phenomena and the strength of the relationship between each deprivation item and the concept of deprivation is similar across countries/population groups. If metric invariance is satisfied then the deprivation index scores can be compared across countries/population groups i.e. countries/groups with a higher deprivation index score will be suffering from more deprivation than countries/groups with a lower deprivation index score.
- 3) Scalar - This is the ideal i.e. a deprivation index score of 4 in all countries measures exactly the same amount of deprivation – deprivation has been measured identically in each country.

## Measurement Invariance Results: MSD in 2014 – adjusted by population structure

Model	RMSEA	CFI	TLI
Configural	0.036	0.99	0.987
Scalar	0.063	0.965	0.962
Partial scalar	0.047	0.981	0.979

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

	Furniture	Arrear	Pocket money	Holidays	Home warm	Car	Shoes	Internet	Clothes	Unexpected expenses	Proteins	Friends	Leisure
Spain	*			*		*		*	*	*	*		
Greece	*	*	*		*	*			*				
Bulgaria	*				*		*	*	*				
Ireland				*	*	*		*		*			
France			*	*			*			*			*
Hungary					*	*	*					*	
Cyprus	*	*			*								
Germany			*	*								*	
Croatia		*		*									*
United Kingdom	*		*					*					



## Confirmatory Factor Analyses

### Statistics of fit 5-dimensional models. MPI-LA

Country	<i>Without Weights</i>		<i>MPI-LA weights</i>	
	CFI	TLI	CFI	TLI
Argentina 2005	0.71	0.66	0.52	0.48
Argentina 2012	0.89	0.87	0.82	0.80
Bolivia 2003	nc	nc	0.49	0.45
Bolivia 2011	nc	nc	nc	nc
Brazil 2005	0.75	0.71	0.64	0.60
Argentina 2012	0.89	0.87	0.82	0.80
Chile 2003	<b>0.95</b>	0.94	0.84	0.82
Chile 2011	0.76	0.72	0.66	0.63
Mexico 2004	0.70	0.65	0.62	0.59
Mexico 2012	0.65	0.59	0.61	0.58
Uruguay 2005	0.89	0.87	0.79	0.77
Uruguay 2012	0.66	0.60	0.58	0.54

CFI & TFI  
should be  
above 0.95

The data do not  
adequately fit any  
of the weighted  
MPI-LA models.

In all cases the  
MPI weighting  
method  
significantly  
reduces the model  
fit

# Weights

Much effort goes into discussing and determining differential item weights, Ghiselli et al (1981) are persuasive in arguing that differential item weighting has virtually no effect on the reliability and validity of the overall total scores. Specifically, they say that “*empirical evidence indicates that reliability and validity are usually not increased when nominal differential weights are used*” (p. 438).

the correlation between weighted and unit-weighted test scores is almost 1.0. **Thus, the take-home message is pretty simple—don’t bother to differentially weight items. It is not worth the effort.** (Emphasis in the original.)

## You do not need survey data of EU statistical Office quality to produce suitable, valid, reliable and comparably poverty measures

Afrobarometer conducts small opinion survey (circa 1,200 respondents) in 35 African Countries. These surveys are not deigned to measure poverty but they do include a few useful questions about deprivations, assets and UBN (Unmet Basic Needs)

8. Over the past year, how often, if ever, have you or anyone in your family: <i>[Read out options]</i>						
	Never	Just once or twice	Several times	Many times	Always	Don't Know <i>[DNR]</i>
A. Gone without enough food to eat?	0	1	2	3	4	9
B. Gone without enough clean water for home use?	0	1	2	3	4	9
C. Gone without medicines or medical treatment?	0	1	2	3	4	9
D. Gone without enough fuel to cook your food?	0	1	2	3	4	9
E. Gone without a cash income?	0	1	2	3	4	9

89. Which of these things do you personally own? <i>[If no ask]: Does anyone else in your household own one?</i>				
	Yes (personally owns)	Someone else in household owns)	No one in household owns	Don't know <i>[DNR]</i>
A. Radio	2	1	0	9
B. Television	2	1	0	9
C. Motor vehicle or motorcycle	2	1	0	9
D. A Computer	2	1	0	9
E. Bank Account	2	1	0	9
F. Mobile phone	2	1	0	9

92. Please tell me whether each of the following are available inside your house, inside your compound, or outside your compound: <i>[Read out options]</i>					
	None, no latrine available <i>[DNR]</i>	Inside the house	Inside the compound	Outside the compound	Don't know <i>[DNR]</i>
A. Your main source of water for household use	0	1	2	3	9
B. A toilet or latrine	0	1	2	3	9

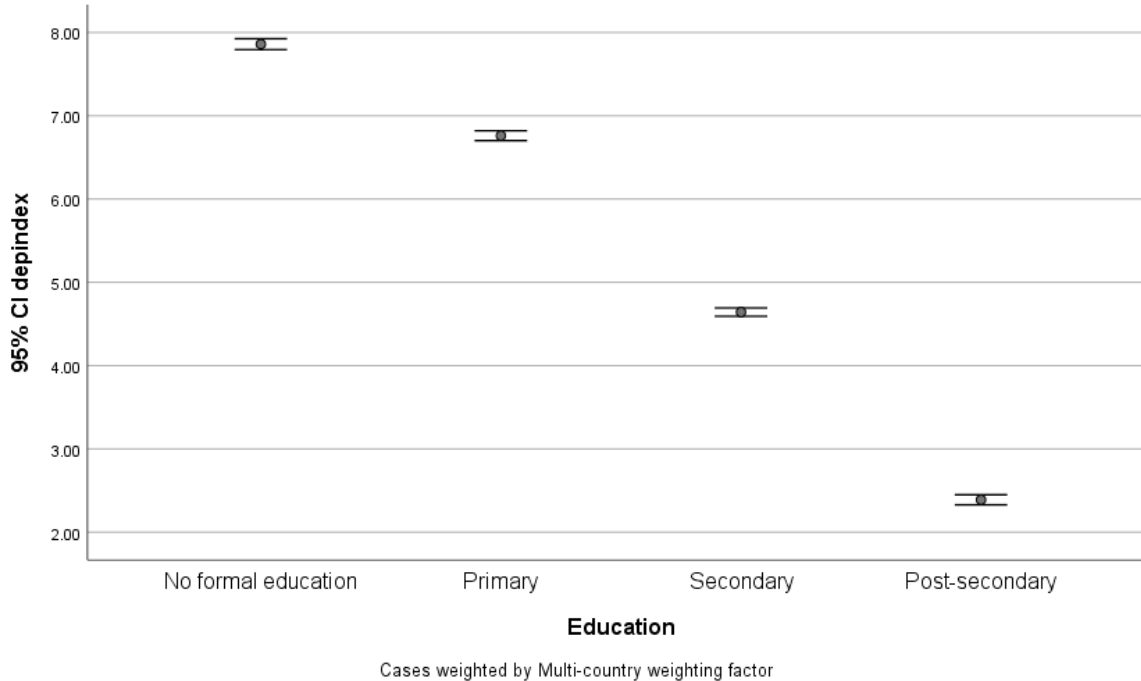
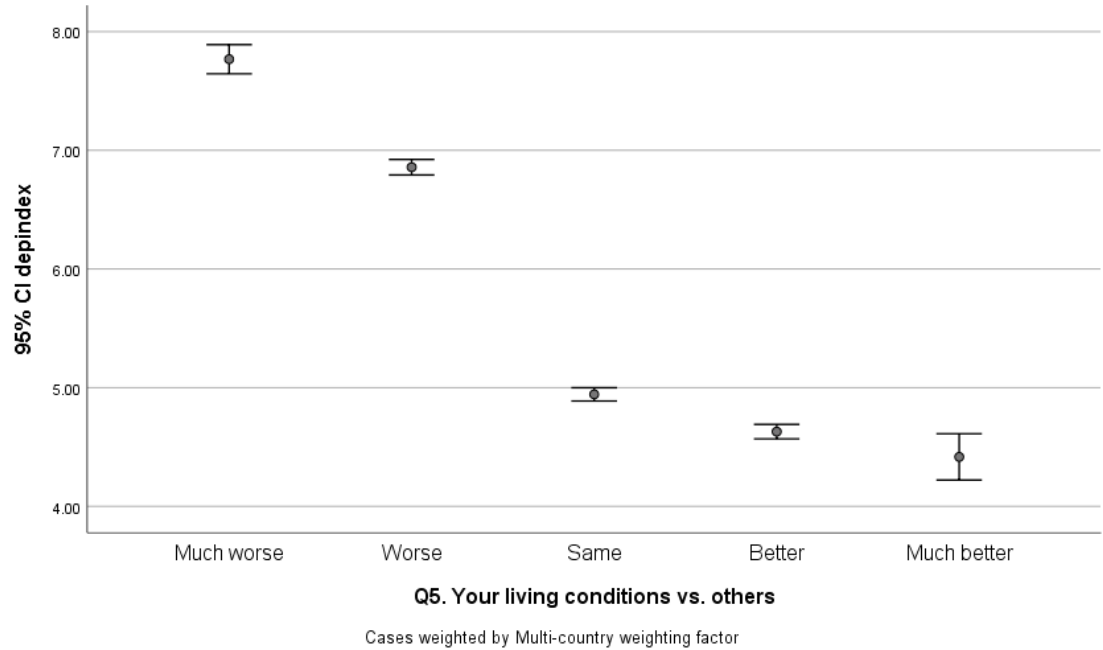


# Afrobarometer Poverty Reliability Statistics: Alpha

Country	Cronbach's Alpha	N of Items
Benin	.817	16
Botswana	.820	16
Burkina Faso	.815	16
Cabo Verde	.777	16
Cameroon	.810	16
Côte d'Ivoire	.797	16
eSwatini	.787	16
Gabon	.801	16
Gambia	.801	16
Ghana	.781	16
Guinea	.768	16
Kenya	.797	16
Lesotho	.816	16
Liberia	.793	16
Madagascar	.818	16
Malawi	.788	16
Mali	.770	16
Mauritius	.622	16
Morocco	.713	16
Mozambique	.838	16
Namibia	.833	16
Niger	.806	16
Nigeria	.745	16
São Tomé and Príncipe	.796	16
Senegal	.848	16
Sierra Leone	.837	16
South Africa	.725	16
Sudan	.834	16
Tanzania	.803	16
Togo	.812	16
Tunisia	.704	16
Uganda	.799	16
Zambia	.833	16
Zimbabwe	.817	16

# Afrobarometer Poverty Measure Validity Tests

- 1) Subjective Poverty
- 2) Educational Level



# **Using Universal Poverty Measures to Make Better Policy**

## **Example of MEXICO**

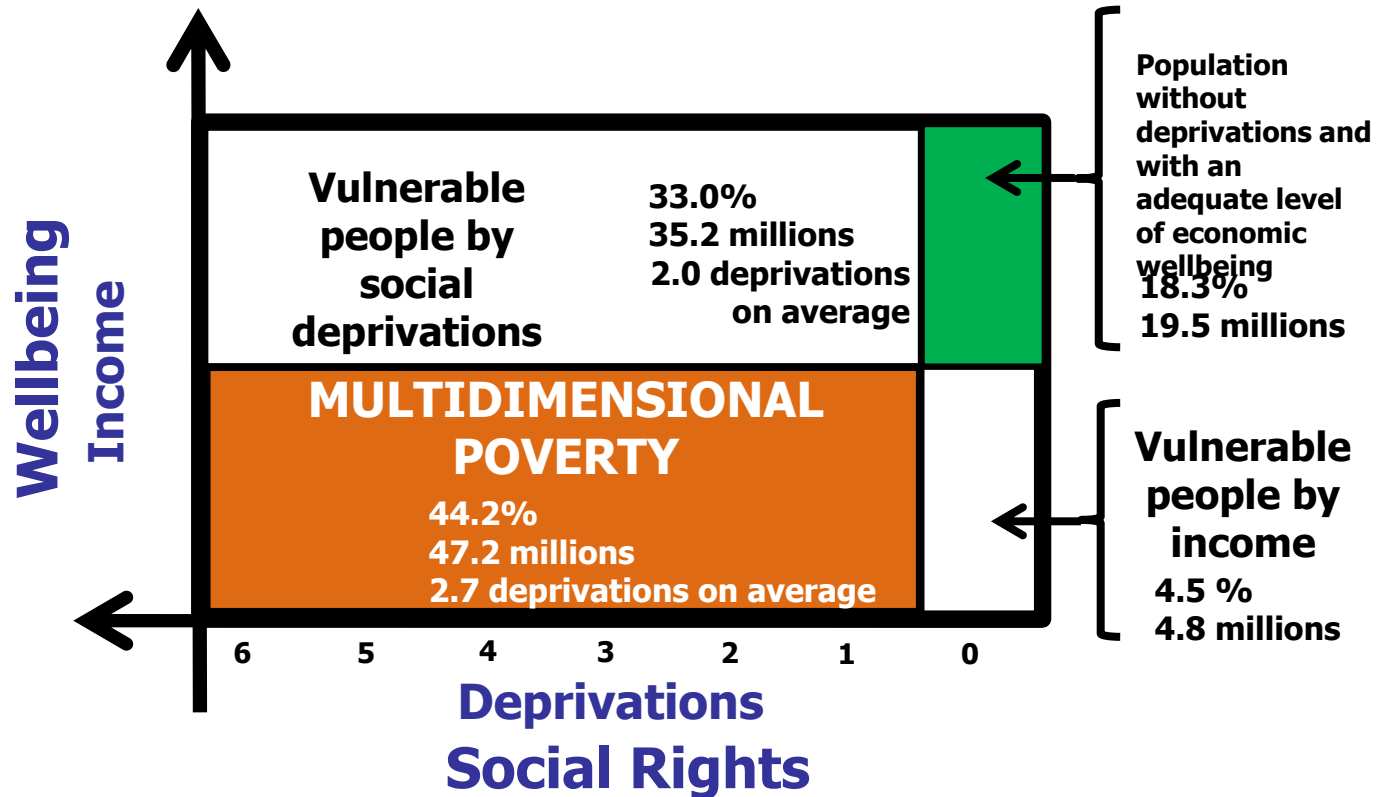
# Rights to social development

“..to guarantee the full exercise of the social rights set forth in the Political Constitution of the United Mexican States, ensuring access to social development to the population as a whole ”



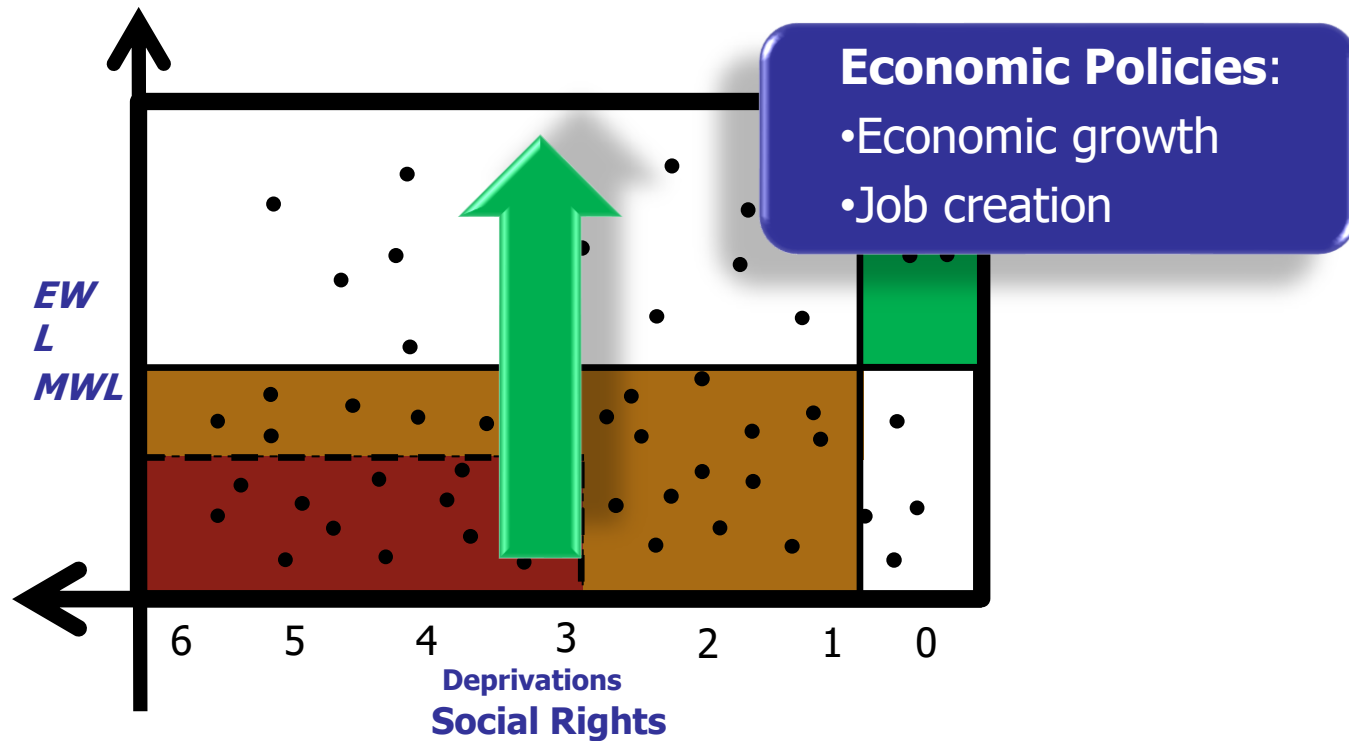
# Mexico Poverty Measurement

## Total population 2008 (106,680,526)

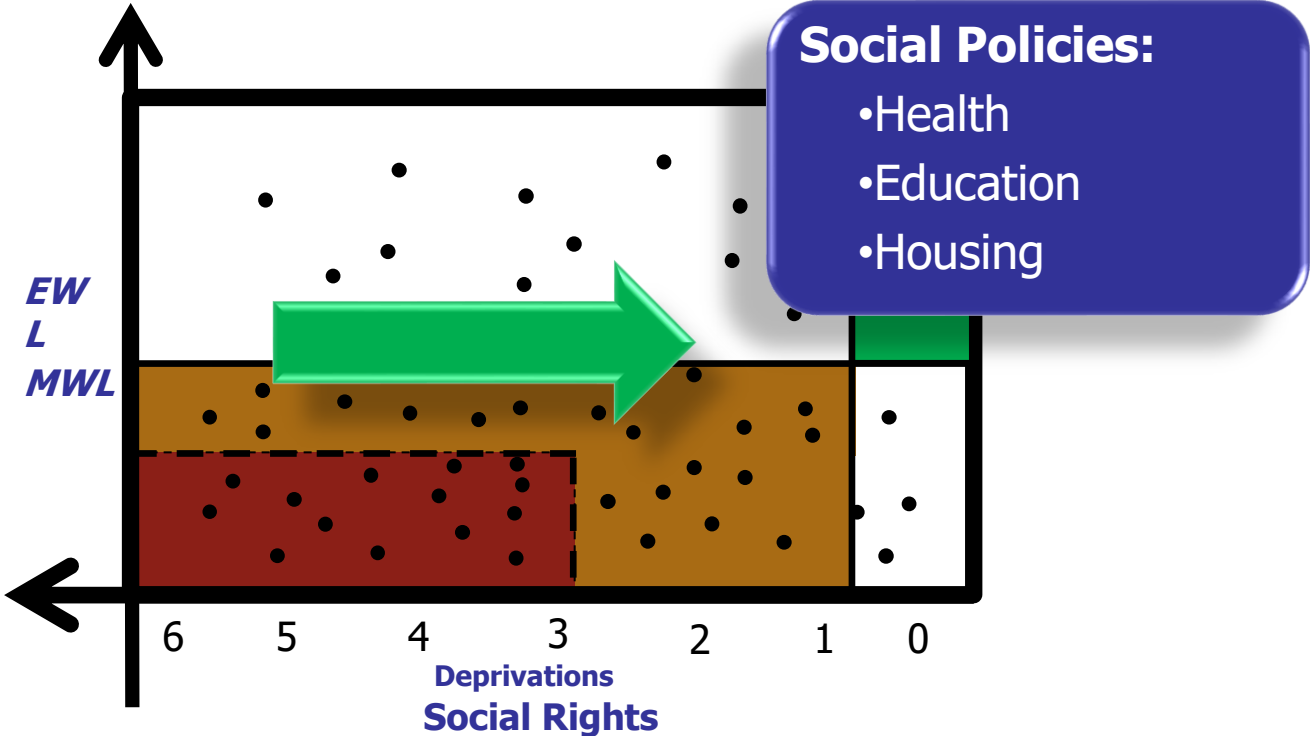


# **USING THE METHODOLOGY FOR PUBLIC POLICY**

# What policies should be carried out?



# What policies should be carried out?

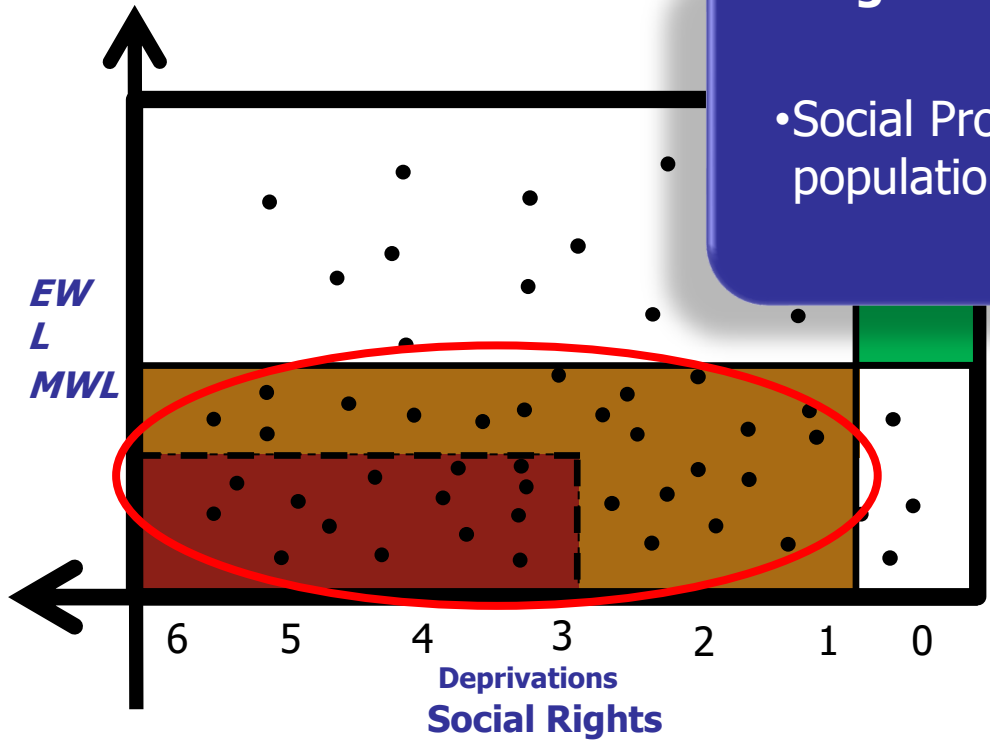




# What policies should be carried out?

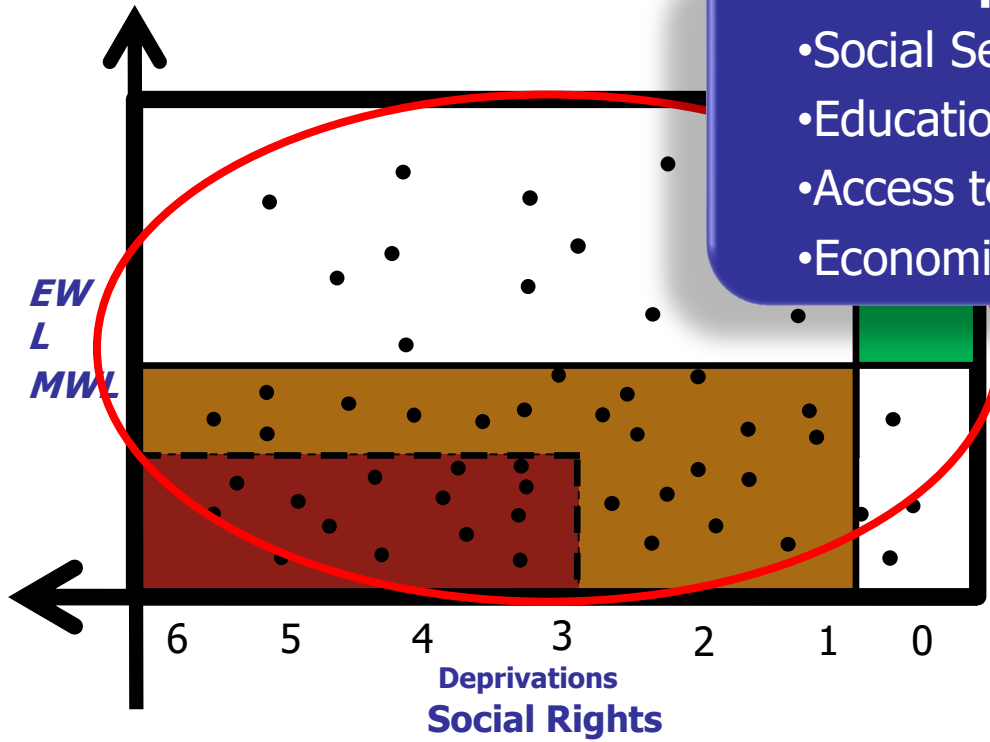
**Targeted policies**

- Social Programs for the population in poverty



# What policies should be carried out?

- Universal policies
- Social Security
- Education for all
- Access to health services
- Economic growth



# **Poverty: Key Messages from Research**

# Poverty is not a Behaviour

Since the work of Charles Booth (1902-03), Seebohm Rowntree (1901) and their Victorian and Edwardian contemporaries repeated studies have shown that the primary cause of poverty is not the ‘bad’ behaviour of the poor.

Poverty is primarily caused by structural factors, such as low wages, a lack of jobs, the lack of state provision to adequately compensate those engaged in unpaid work – particularly caring work, etc.

Despite intensive research by often highly partisan researchers, as far as I am aware there are no credible scientific studies which show that any significant group of people are poor as a result of indolent, feckless, skiving or criminal behaviour.

# Poverty is not a Disease

Poverty is not like syphilis a curse across the generations, you cannot catch poverty from your parents nor pass it onto your friends, relatives or children. Research has shown that poor adults and children do not have a 'culture of poverty' and tend to have similar aspirations to the rest of the population.

Poor children are of course more likely, than their richer peers, to become poor adults but this is largely due to structural reasons rather than any 'cycle of poverty' or 'transmission' of poverty.

# **Redistribution is the only Solution to Child Poverty**

The economics are very simple and are entirely concerned with redistribution – where sufficient resources are redistributed from adults to children there is no child poverty; where insufficient resources are redistributed from adults to children child poverty is inevitable

Children cannot and should not do paid work to generate the resources they need to escape from poverty. This is the job of adults.

Children should be spending their time playing and learning not working at paid labour.

# Child Poverty Eradication Strategy

1. Increasing the income of poor families with children.
2. Ensure that, as far as possible, children living in low income families are not materially and socially deprived.
3. Ensure that children are not malnourished and food insecure.
4. Provide access to safe drinking water, sanitation and electricity.
5. Provide universal health coverage for children, particularly for children under five years old.
6. Reduce the hidden costs of education and provide free school meals.
7. Help young people participate effectively in education and training – including through the provision of special grants where needed to cover education related costs.
8. Promote and facilitate employment for parents in low-income families.
9. Help low-income parents with the skills needed to secure employment and improve agricultural production.
10. Help young people take advantage of employment opportunities. This is of critical importance as increasing numbers of children reach working age.
11. Protect children from harmful work.
12. Support the parenting of children.
13. Encourage children's participation in cultural, sporting and leisure activities.
14. Help young people participate effectively and responsibly in the life of their community.
15. Ensure that all children grow up in decent housing.
16. Ensure that all children grow up in safe and cohesive communities.

# One Englishman's view on the purpose of government



“When it shall be said in any country in the world my poor are happy; neither ignorance nor distress is to be found among them; my jails are empty of prisoners, my streets of beggars; the aged are not in want; the taxes are not oppressive; the rational world is my friend, because I am a friend of its happiness: When these things can be said, there may that country boast its Constitution and its Government”

— [Thomas Paine](#), [\*Rights of Man\*](#) (1791)

Today, 230 years later, we have greater ambitions, to eradicate poverty and leave no one behind. To be successful this requires global efforts and global partnerships.