

ICP, CPI and Global Poverty measurement

Shaohua Chen

Gregory Chow Center for Economic Research

Xiamen University

Outline

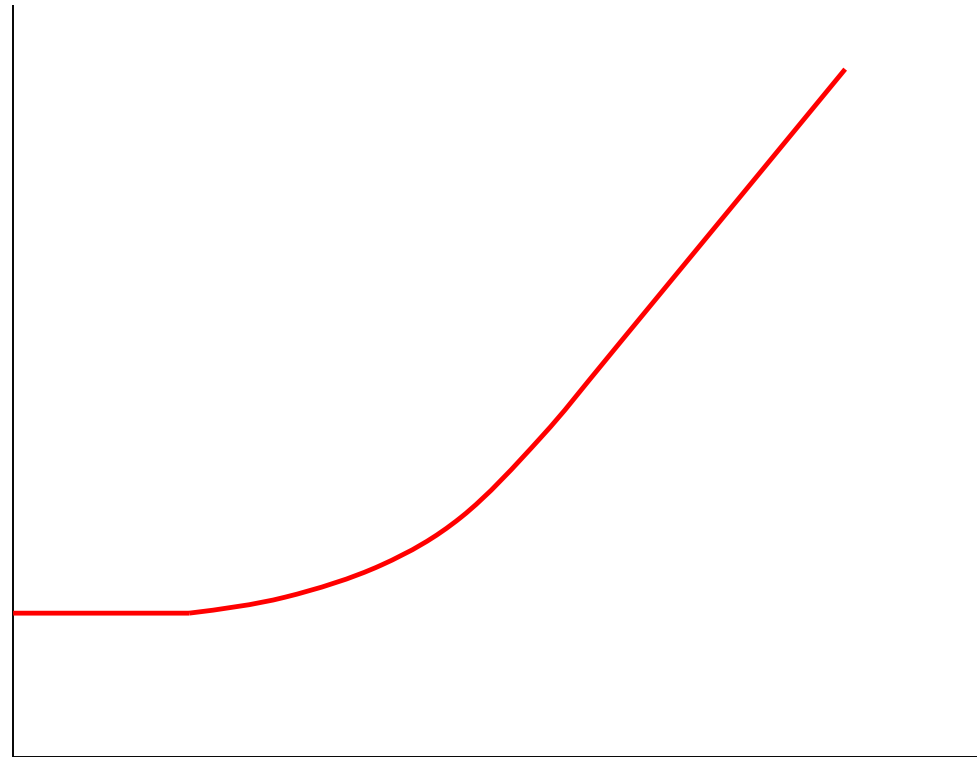
1. The World Bank's global poverty measures
2. Why PPP is needed in Global poverty measures?
3. International Comparison Program (ICP) and Purchasing power parities (PPP)
4. The International Poverty lines
5. Consumption items in ICP, CPI and Household survey–
Country case study

“Poor” by whose definition?

- In assessing poverty in a given country, and how best to reduce poverty, one naturally focuses on a poverty line that is considered appropriate for that country.
- But how do we talk meaningfully about “global poverty”?
 - Poverty lines across countries vary in terms of their purchasing power,
 - and they have a strong economic gradient, such that richer countries tend to adopt higher standards of living in defining poverty =>

=> Absolute poverty dominates in poorest countries; relative poverty elsewhere

Poverty line at PPP

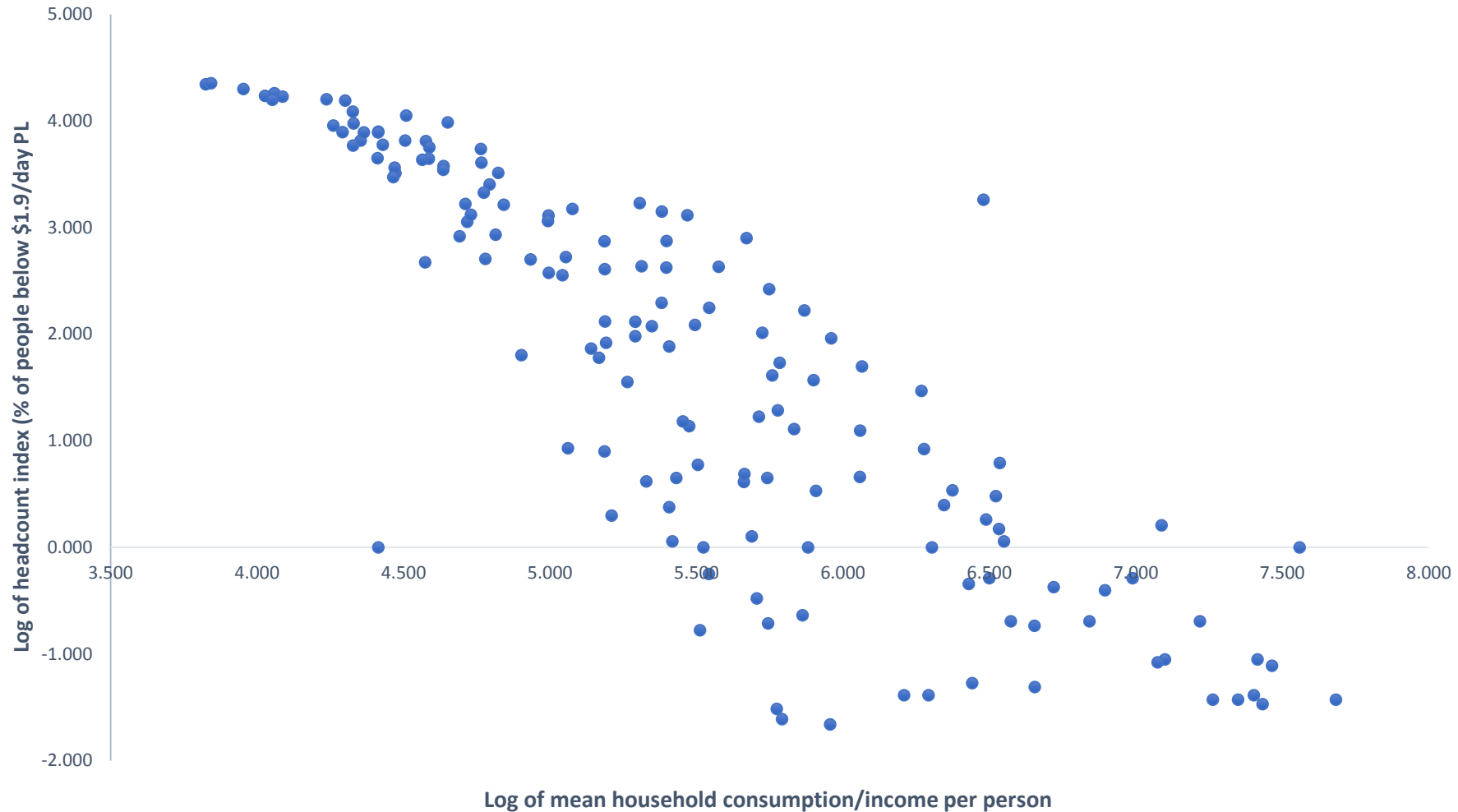


Log consumption per capita at PPP

Two stylized facts about poverty

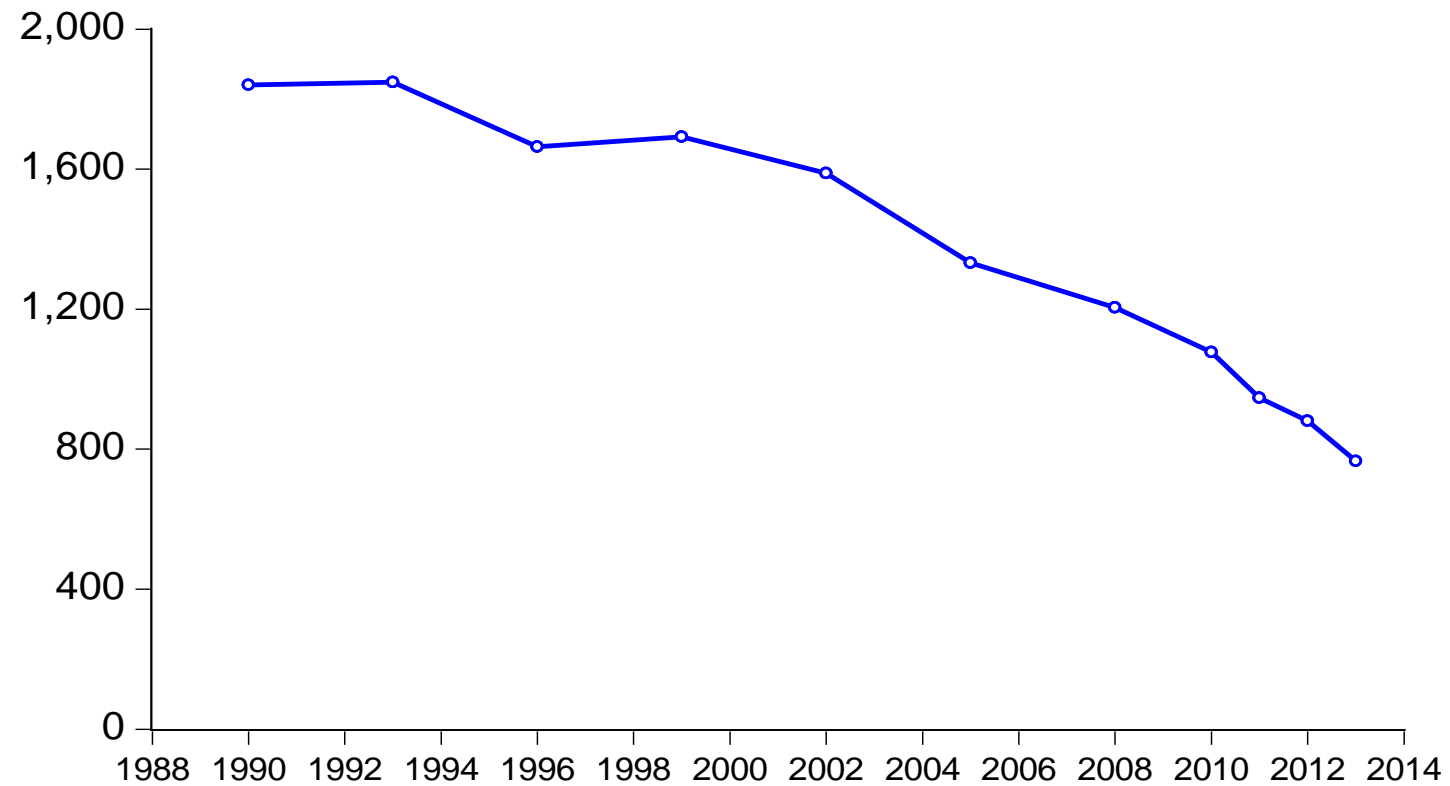
Stylized fact 1: Less poverty in richer countries

(Log) headcount index plotted against log mean



Stylized fact 2: Poverty is falling globally

Number (in millions) living below World Bank international line (\$1.90/person/day; 2011 PPP)



Why PPP is needed in Global poverty measures?

- Convert national poverty line in local currency into PPP dollars
- Set up the international poverty line (IPL) in PPP dollars
- Using PPP to convert the IPL into local currency
- The PPP used here is Consumption PPP for individual household

WDR 1990: National poverty lines are the data for setting the Bank's international line

- International line should not fall outside the range of national lines.
- Richer people – and richer countries – tend to have higher poverty lines (Ravallion, Datt and van de Walle, 1992).
 - Amongst poor countries, there is very little income gradient across countries in their poverty lines — absolute consumption needs dominate.
 - But the gradient rises as incomes rise.
- Also idiosyncratic effects, so we take averages =>



A brief history of global poverty monitoring at the World Bank

3. Chen and Ravallion (RIW, 2001):

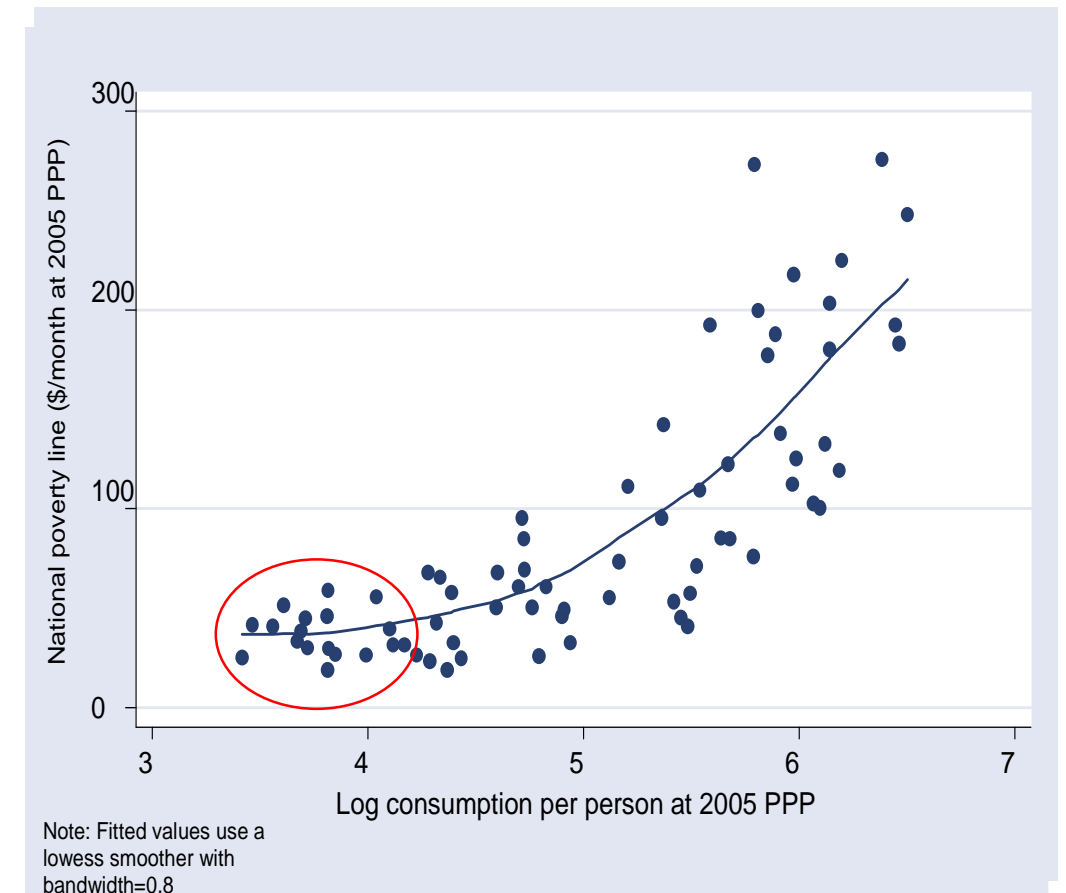
- Update the line to **\$1.08-a-day** using **1993 PPPs** for consumption.
- Global line chosen as the median poverty line of the lowest 10 lines from WDR 1990 set.
- Those 10 countries are Bangladesh, China, India, Indonesia, Nepal, Pakistan, Tanzania, Thailand, Tunisia and Zambia.
- All numbers revised back in time to ensure consistency. Estimates based on data from 83 countries (265 national sample surveys)

A brief history of global poverty monitoring at the World Bank

4. Ravallion, Chen and Sangraula (WB, 2009):

- Update the line to **\$1.25-a-day** using **2005 PPPs** for consumption.
- New compilation of national poverty lines from the Bank's country-level Poverty Assessments (for 74 countries)
 - Poverty lines considered appropriate to living standards in each country,
 - Consultation with Government, or Government's own poverty line.
- Reference group of the poorest 15 countries.
 - Malawi, Mali, Ethiopia, Sierra Leone, Niger, Uganda, Gambia, Rwanda, Guinea-Bissau, Tanzania, Tajikistan, Mozambique, Chad, Nepal and Ghana.

Figure 1: National poverty lines for 74 developing countries plotted against mean consumption using consumption PPPs for 2005



Revisions to the international poverty line

Update:	1990 “Dollar-a-day”	2001 1.08/day	2008 1.25/day	2015 1.90/day
Source	1990 WDR, Ravallion, et al (1991)	Chen and Ravallion (2001)	Ravallion, Chen and Sangraula (2009)	Ferreira, Chen and etc.(2015)
ICP data	1985 PPPs	1993 PPPs	2005 PPPs	2011 PPPs
Poverty lines used	6 countries	10 countries	15 countries	15 (same lines as 2008)
Method	Inspection	Median	Mean	Mean
Poverty line (ICP base year USD)	\$1.01	\$1.08	\$1.25	\$1.90
Poverty line in constant 1985 USD	\$1.01	\$0.80	\$0.69	\$0.91

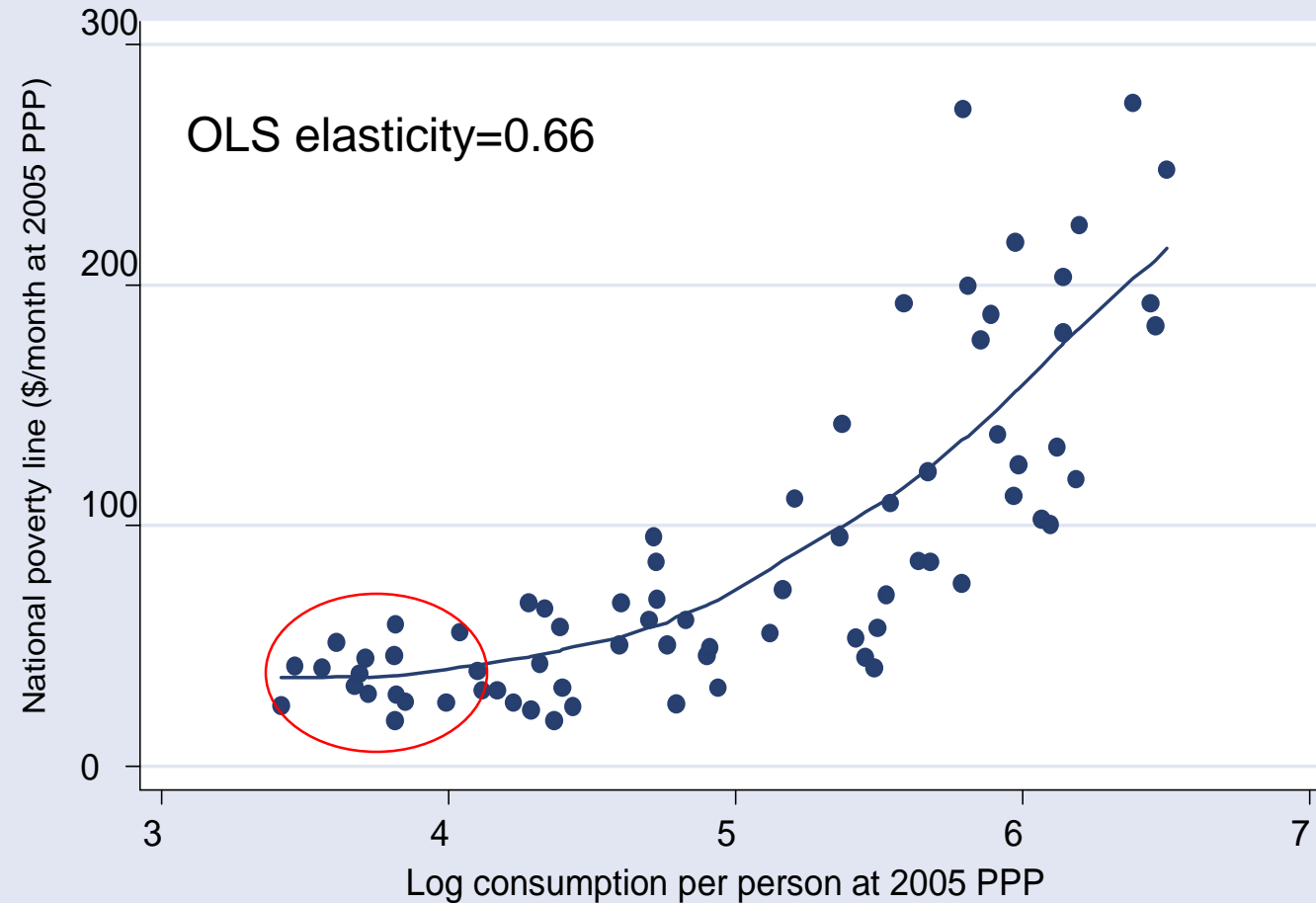
Prior “\$1 a day” poverty lines

- Impossible to compare different sets of PPPs.
 - For example, adjusting “\$1” at 1985 PPP only for inflation in the US yields a poverty line in 1993 that is well above that found in low-income countries
- Chen and Ravallion chose the median poverty line of the lowest 10 lines from original WDR 1990.
- This gives \$1.08 at 1993 PPP for consumption.
 - Regression based method gives \$1.05 (95% CI: \$0.88,\$1.24) for poorest country.
- Note: All numbers revised back in time to assure consistency.
- Those 10 countries are Bangladesh, China, India, Indonesia, Nepal, Pakistan, Tanzania, Thailand, Tunisia and Zambia.

The “\$1 a day” global poverty measures

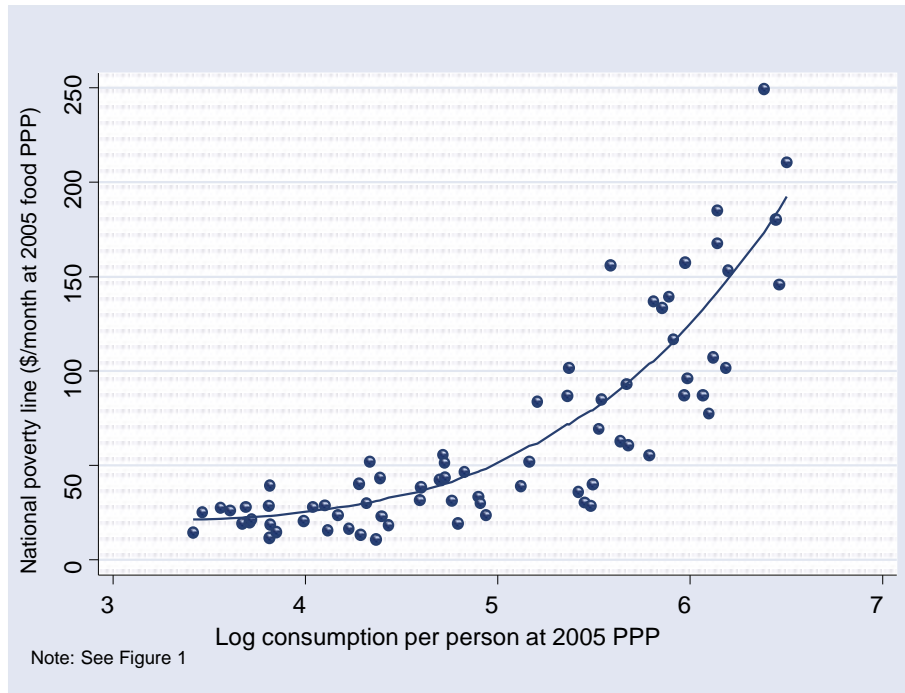
- To measure poverty in the world as a whole, the “\$1 a day” measures apply a common standard, anchored to what “poverty” means in the world’s poorest countries.
- Two people with the same purchasing power over commodities are treated the same way—both are either poor or not poor—even if they live in different countries.
- By focusing on the standards of the poorest countries, the \$1 a day line gives the global poverty line a salience in focusing on the world’s poorest that a higher line would not have.

National poverty lines for developing countries plotted against mean consumption using consumption PPPs for 2005



Note: Fitted values use a
lowess smoother with
bandwidth=0.8

Food PPP



Lower poverty line: \$22.72

Fisher PPP (Deaton-Dupriez)



\$1 a day line! \$31.72

Steps in measuring global poverty

Differences in data and methods between ICP benchmark years => PPP conversion is only done once

+ National data sources used for inter-temporal comparisons

- The international poverty line is converted to local currencies in the ICP benchmark year (i.e.2011)
- and is then converted to the prices prevailing at the time of the relevant household survey using the best available CPI for that country.
- Then the poverty rate is calculated from that survey.
- Interpolation/extrapolation methods are used to line up the survey-based estimates with these reference years, including 2011.



National, urban and rural poverty lines – \$x/day in 2015 round

PPP exchange rate for country i: $PPP_{ni} = W_{ri}PPP_{ri} + W_{ui}PPP_{ui}$ where $W_{ri} + W_{ui} = 1$

Assuming Z_n is the international poverty line in local currency, $Z_n = x * PPP$

$$Z_n = W_r * Z_r + W_u * Z_u \quad (1) \quad \text{here } Z_r = x * PPP_r \text{ and } Z_u = x * PPP_u$$

Where Z_u and Z_r are urban to rural international poverty lines in local currency

$$\text{Let } K = z_u / z_r \quad (2)$$

K is the ratio of urban to rural national poverty lines and

$$z_u / z_r = Z_u / Z_r$$

$$\text{Then } Z_r = Z_n / (W_r + W_u * K) ; \quad Z_u = Z_n / (W_u + W_r / K)$$

National Household Surveys – the foundation of the global poverty estimate

- NSOs collect household survey data for **national** poverty policies, not global poverty measurement.
 - Typically reflecting country context, some countries collect data on consumption, expenditure, and/or income
 - Data is collected at the household level, differing adjustments for adult-equivalence (and/or economies of scale)
- Some efforts to standardize
 - Some regional efforts to bring more uniformity of instrument
 - WB staff often ‘teach’ Deaton-Zaidi guidelines for consumption
 - PovcalNet requests data in per-capita terms, nominal terms
- But important comparability issues remain...

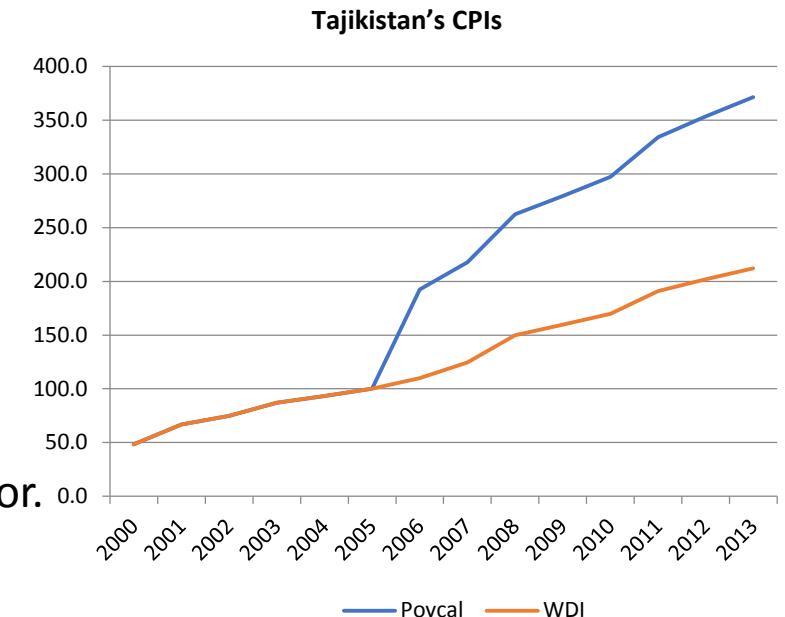


Comparability, issue 2: Measured consumption differs (both between and within countries)

- Differences in questionnaire affect consumption:
 - Diaries vs. recall
 - Nonfood varies (some include rent, durables, and/or health; others do not)
 - Count of pre-coded food items affects aggregate
 - Recall frame affects responses (eg. Telescoping, “Great Indian Debate”)
 - INDIA EXAMPLE: Since 1950s - India used uniform 30-day recall period (URP), then switched recall frame twice. In 2009, switched to “modified mixed reference period” (MMRP), short for some, long for others.
 - =>
 - MMRP-based consumption gives poverty rate of **12** percent for 2011/12.
 - URP results in poverty rate of **21** percent for 2011/12 (used in WB estimate)
 - Difference of **109 million** poor people in India’s and global estimates.
- Many other important differences: Timing of fieldwork, Training, Supervision, Cleaning/editing rules; etc.

Adjusting for inflation, comparability over time

- National distributions of welfare and select poverty lines are adjusted for inflation and expressed in real local currency for ICP base years (e.g. 2005, 2011) before converting to PPPs.
- Current global poverty line is sensitive to the choice of CPIs
 - National poverty lines are moved from 2005 to 2011, then converted
 - Using only WDI CPIs, the \$1.25 poverty line converts into **\$1.70/day** at 2011 PPPs
 - Using PovcalNet CPIs, the latest calculation is **\$1.90/day**
- Example: Tajikistan, CPI vs hh survey-based measure
 - Large divergence between Povcal and WDI CPIs in 2005-2006
 - Official **CPI implies 18%** annualized growth of household survey
 - mean from 2004 to 2009, **Povcal “CPI” implies 6%** growth
 - Implication for poverty lines:
 - Brings Tajik poverty line (in PPP2011 USD) from 1.82 to 3.18
 - Raises **global** poverty line by **9 cents**.
 - This change adds **110 million** people to the count of the global poor.



3. International Comparison Program (ICP) and Purchasing power parities (PPP)

revision: 1993→2005

2005→2011

Balassa-Samuelson and the “Penn Effect”

- International comparisons have long recognized that market exchange rates are deceptive given that many of the commodities that people consume are not internationally traded.
 - Low real wages in developing countries entail that labor-intensive non-traded goods tend to be relatively cheap there (the “Balassa-Samuelson effect”).
- =>Market exchange rates, which tend to equate purchasing power in terms of traded goods, tend to understate real income in developing countries (the “Penn effect”)

Purchasing Power Parities

- Recognizing this problem, global poverty measures (and other international comparisons) have used PPPs rather than market exchange rates.
- A PPP is the conversion rate for a given currency into a reference currency (invariably the \$US) with the aim of assuring parity in terms of purchasing power over commodities, both internationally traded and non-traded.
- Concerns about quality of past PPP's
 - Incomplete ICP participation
 - Differences in quality of goods
 - Weak standards for price surveys

The Ryten Report: Biases in past PPPs

=> New 2005 ICP

- Ryten Report raised serious concerns about lack of clear standards in defining internationally comparable commodities.
- Why does this matter?
 - There is likely to be an economic gradient in the quality of commodities consumed;
 - Without strict standards, one will underestimate the cost of living in poor countries by confusing quality differences with price differences.
 - PPPs will be underestimated in poor countries.
- Following the Ryten Report, methodological and operational improvements were implemented by the 2005 ICP.

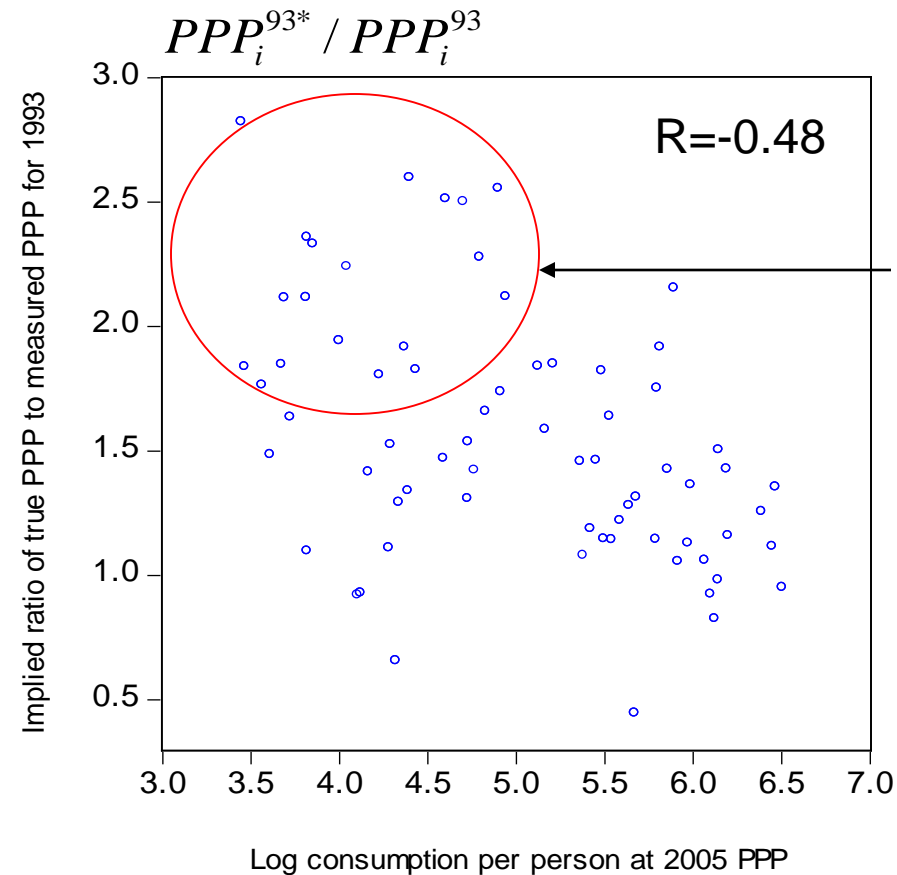
2005 PPPs based on 2005 ICP

- New price surveys
 - Larger coverage: 146 countries; region-specific lists of 600-1000 commodities; six regions
 - China participated for the first time. Many new countries in Africa. But weak participation from Latin America.
 - Ring comparisons for larger set of countries
 - More rigorous surveying and validation methods
 - Higher standards of specifying the quality of goods and supervision in poor countries
- Also PPPP (PPP's for the Poor) weight 2005 ICP prices by consumption patterns near the poverty line, based on household surveys (Deaton and Dupriez)
- Asian Development Bank's special surveys" "prices paid by the poor".

Some large revisions to PPPs

- The new ICP data imply some dramatic revisions to past estimates, consistent with the view that the old ICP data had under-estimated the cost-of-living in poor countries.
- China: “price level index” (PPP divided by market exchange rate) went from 25% in 1993 to 52% in 2005.
- India: price level index went from 23% to 40%.
- Penn effect is still evident, but it was overstated in the past.

Larger revisions to PPPs for poorer countries



Market upward revision
to price levels in poorest
countries

Biases in 2005 ICP

- “Urban bias” in price surveys
 - China: 11 cities; reasonably representative of urban areas but not rural
 - Similar problems for Argentina, Brazil, Bolivia, Cambodia, Chile, Colombia, Pakistan, Peru, Thailand and Uruguay.
- Correction using urban/rural poverty line differentials.
- India: ICP surveys under-represent rural areas
 - Implicit PPPs for urban and rural India (Rs 17 and Rs 11)
- PPP’s for the poor: Deaton and Dupriez have re-weighted the PPPs for sub-sample of countries with the necessary data and find similar results

2011 International Comparisons Program

- The release of the 2011 ICP PPP data places once again at the forefront the potential role of the price data for altering the overall profile of global poverty. History has shown us that with each release of the PPP data, there has been a careful review and critique of the data. In some cases, the PPP data have not been used; in other cases, it has been modified to either fill gaps or account for potential problems in measuring poverty. For example, past ICP rounds have not adequately reflected that prices tend to be lower in rural areas than in urban areas, which have required adjustments when estimating poverty in a number of countries.

2011 International Comparisons Program

- The World Bank's new global poverty measurement at 2013 is based on \$1.9 a day poverty line in 2011 PPP. In this round all countries have switched from 2005 to 2011 PPP. As the results, some region's poverty estimate is down warded significantly. History has shown us that the potential important role of the price data for altering the overall profile of global poverty.
- To understand these changes on the global, regional and country level poverty, it is important to study the details of the ICP data: from the sample selection, data collection to the estimation of regional PPP from the country practices, thus figure out the feasible way to better measure global poverty.



2011 International Comparisons Program

- Price data collected in 2011 (released in 2014)
- Increased coverage of countries: 146 economies in 2005, to 199 in 2011 covering 99% of world nominal GDP
- Increased coverage of rural prices, particularly in China, India, Indonesia (as compared to 2005)
- 18-ring-country approach from 2005 replaced by subset Global Core List of items from all countries for linking in 2011.

2011 Purchasing Power Parities

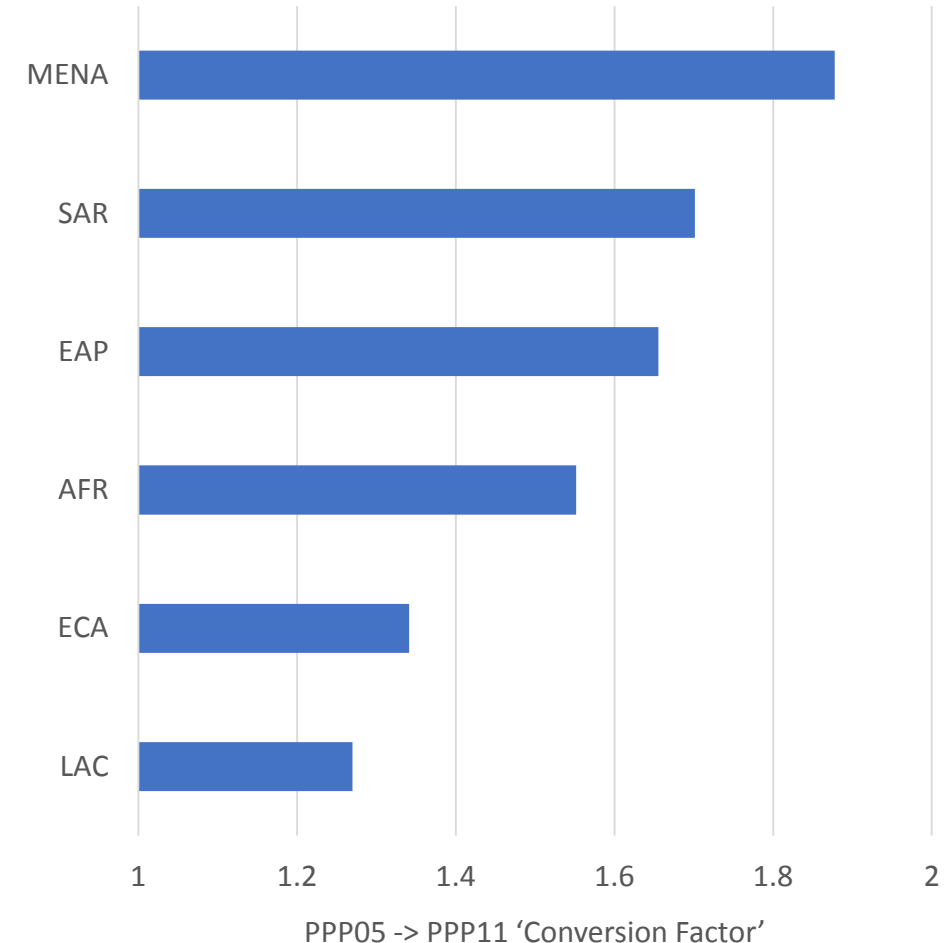
- 2011 PPPs indicate shift in regional profile of relative price levels:
 - 2011 PPPs suggest lower relative price levels in poor countries (relative to US) => higher PPP-adjusted USD values of consumption & income.

- Convert 2005 PPP value => 2011 PPP value:

$$\frac{CPI_{11}/CPI_{05}}{PPP_{11}/PPP_{05}}$$

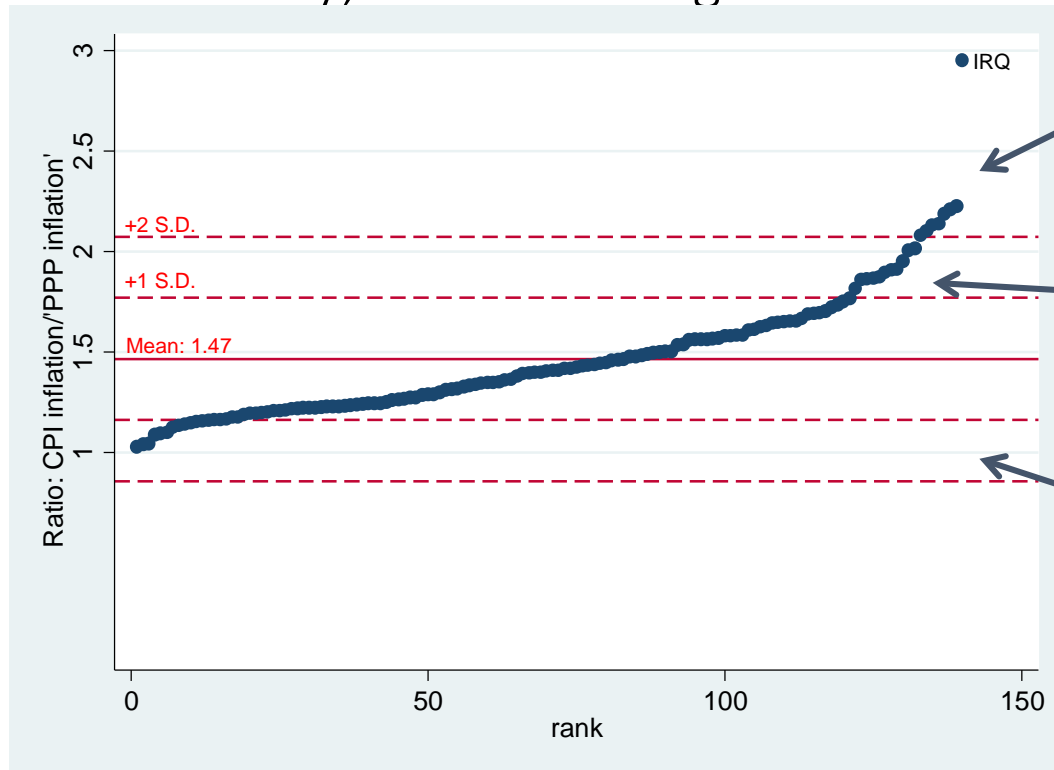
Change in CPI relative to change in PPPs. Can be thought of as country-specific PPP05 -> PPP11 deflators.

- Mean $\Delta CPI/\Delta PPP > 1$, perhaps due to ΔICP methodology or increased rural coverage.
- Poverty line ratio = 1.52, so if ratio greater than this, consumption increasing more than poverty line => decrease in poverty



2011 Purchasing Power Parities – ‘Outliers’

CPI and PPP both reflect changes in prices, expect to co-move. Large deviations, *potentially* due to data quality issues in CPI and/or PPP, result in large shifts in poverty. ‘Outliers’ identified by: Ratio of Δ PPP (PPP2011/PPP2005) to Δ CPI (CPI2011/CPI 2005) for each country; Also reflecting concerns from country economists



> mean + 2 S.D.:
Iraq, Bangladesh, Egypt, Jordan, Cabo Verde
For these countries we report numbers with 2005 PPPs and \$1.25 line

> mean + 1 S.D.:
Cambodia and Lao PDR and 6 other PovcalNet countries
Substitution considered on case-by-case basis with poverty economists

< mean - 1 S.D.:
BLR, UKR, MEX and OECD/Eurostat
No action taken

Mean: 1.466; S.D.: 0.304

(without IRQ: 1.455; 0.277 – same countries excluded)



Within-country spatial cost-of-living adjustments (COLA)

- Chen and Ravallion (QJE, 2010) and PovcalNet make urban-rural adjustments to PPPs for **China, India & Indonesia** in 2005 estimates.
- Adjustments motivated by:
 - A concern for (urban) bias in collection of prices in the 2005 ICP
 - Desire to report rural and urban poverty separately for select countries
- 2012 estimates continue to use COLAs. Adjustments re-estimated, based on ratio of more recent rural/urban national poverty lines.
 - Adjustments are not done for all countries due to limited data on rural-urban price differences, ICP sampling, and PovcalNet historical data mostly containing national distributions.

Updating the RCS15 \$1.25/day line to 2011 PPPs

- Goal to ‘end’ global poverty by 2030 based on \$1.25 poverty line.
- Desire to keep the line fixed in real terms (“Don’t move the goal line”)
- We start with the 2005 LCU value of the national poverty lines for the RCS15.
- Use 2005PPP => 2011 PPP scaling factor (previous slide).
- This yields an average around \$1.90.

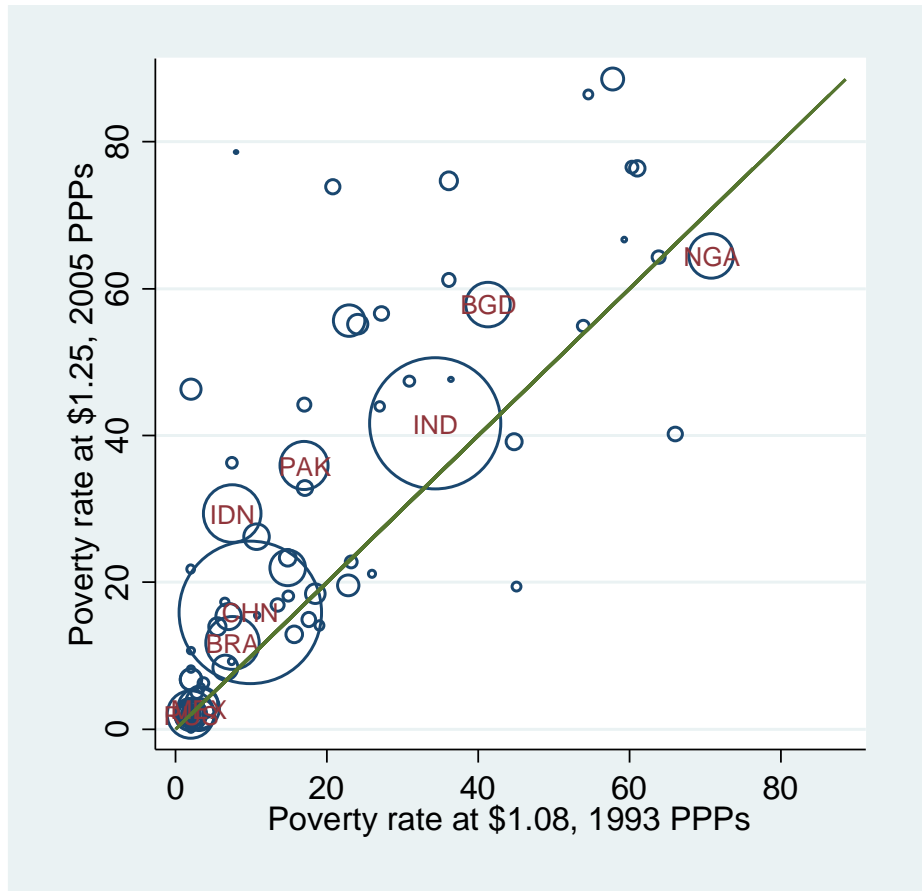
Country	Year	2005 PPP	2011 PPP
Malawi*	2004-05	0.86	1.34
Mali	1988-89	1.38	2.15
Ethiopia	1999-2000	1.35	2.03
Sierra Leone	2003-04	1.69	2.73
Niger	1993	1.10	1.49
Uganda	1993-98	1.27	1.77
Gambia, The	1998	1.48	1.82
Rwanda	1999-2001	0.99	1.50
Guinea-Bissau	1991	1.51	2.16
Tanzania	2000-01	0.63	0.88
Tajikistan*	1999	1.93	3.18
Mozambique	2002-03	0.97	1.26
Chad	1995-96	0.87	1.28
Nepal	2003-04	0.87	1.47
Ghana*	1998-99	1.83	3.44
Average		1.25	1.88

*Countries use category 4 price deflators in conversion.

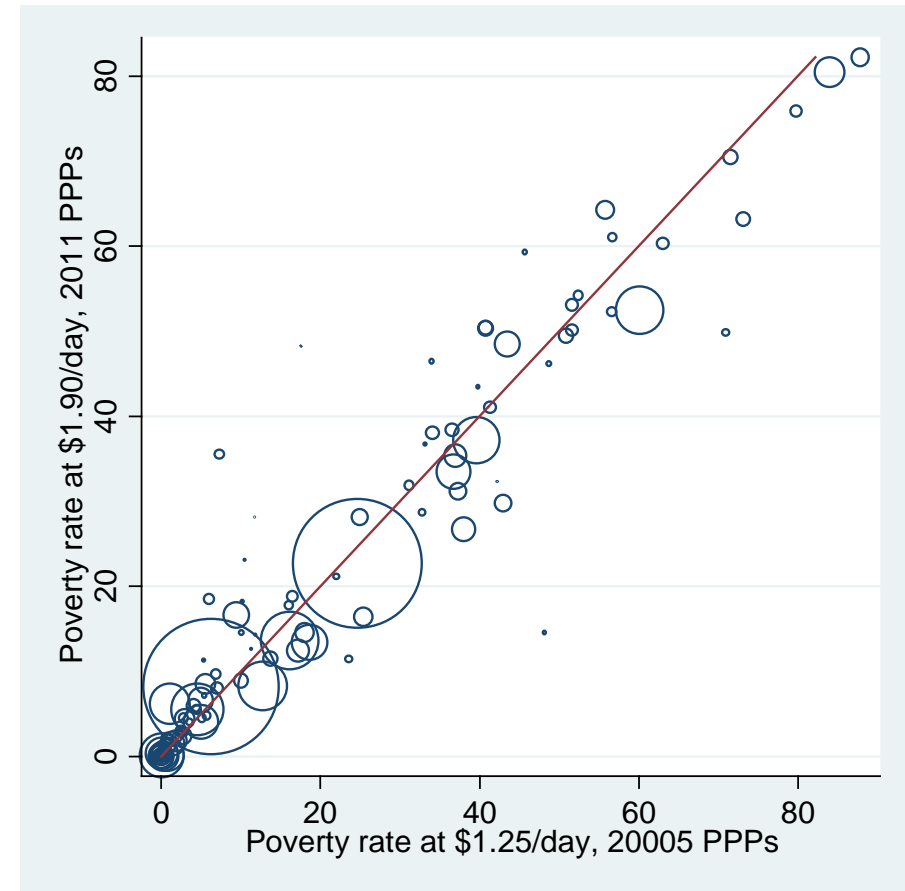
Country re-rankings are not new in the context of PPP revisions

Changes to national poverty rates: 2008 vs 2015 update

2008 update from 1993 PPPs to 2005 PPPs

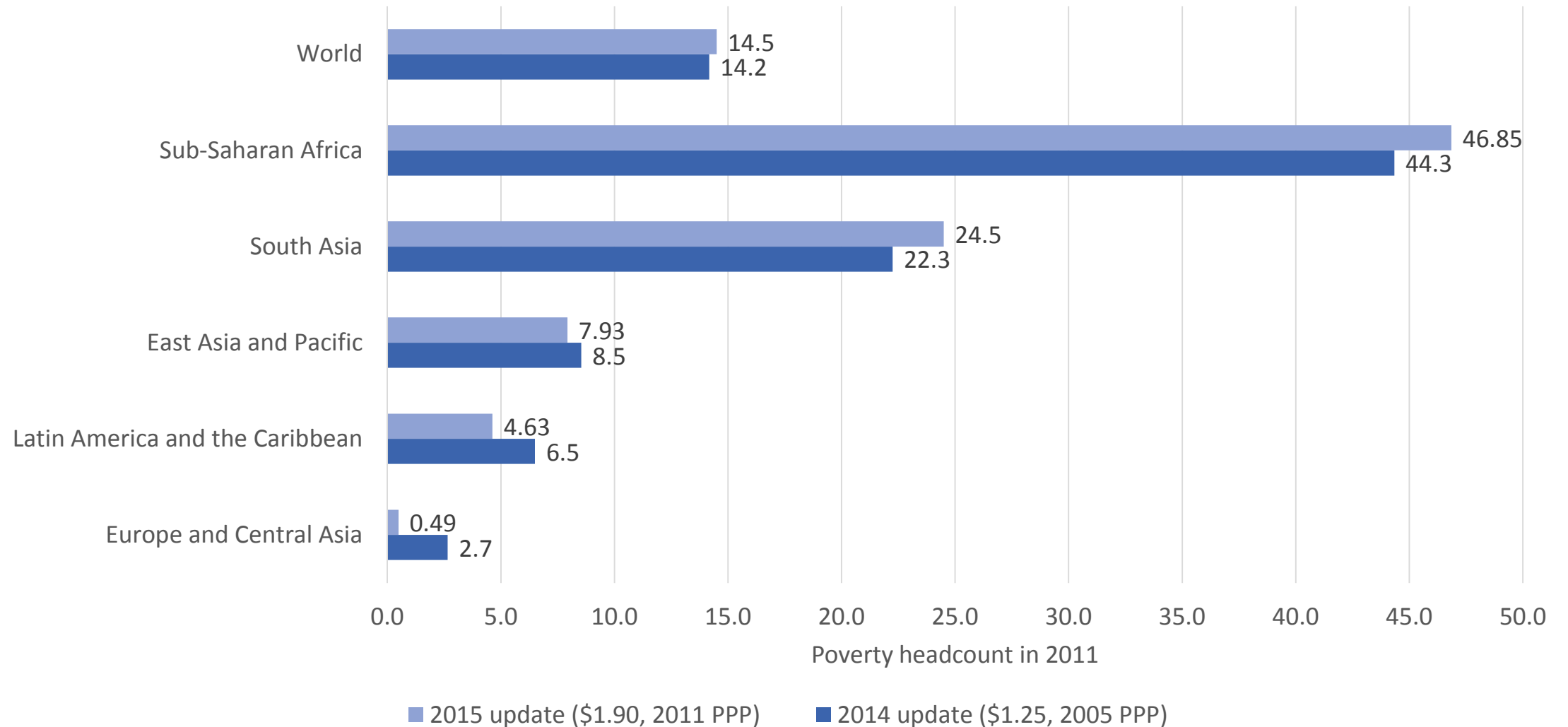


2015 update from 2005 PPPs to 2011 PPPs



Country level estimates still preliminary

Global patterns largely maintained: 2011 estimate goes from 14.5% to 14.2% poor



Why extra information is needed on CPI, ICP and their overlap with household survey

- i. In order to address user's concerns about global poverty measurement based on \$/day poverty line (PL)
 - i.e. Mongolia's poverty rate is about 0.4% under \$1.9/day PL in 2011 PPP
 - Myanmar's poverty headcount is below 1% using same PL
- ii. Why are the price movements so different between the ICP and CPI?
- iii. Are adjustments necessary when applying the 2011 ICP to global poverty monitoring? What kind of adjustments are feasible?

Check list

1. CPI and ICP
 - Is there any change in sample, weights and/or item list?
2. Overlap between CPI, ICP and household survey
3. Different consumption weights used in ICP and CPI/household surveys
4. ICP
 - Common items between the two rounds of ICP
 - New items added into 2011 round
 - How the national price was calculated
 - Number of obs. And missing value

Differences in implementation between and within regions

- Number of items on the regional and global list
 - It ranges between 719 to 2344 items just within CIS;
 - Between regions, the difference is even bigger;
- Items covered by the ICP and CPI do not always overlap:
 - It is from less than 1% to near 100%;
 - Note: CPI prices may be more representative of national consumption patterns based on household survey
- Outlets selection varies sharply across countries
 - Some are all local markets while others cover large/median shop;
- Timing of data collection is not uniform – ranging from 2011 to 2013;

Do these differences affect welfare and poverty measures?

5. Country case study

B. Number of outlets selected under the ICP Household Consumption Survey

Please enter the *number of selected outlets* by outlet type in each region in the table below and briefly explain the *outlet selection process* in "Note A" at the end of this sheet.

Location		Total	1	2	3	4	5	6	7	8	9
			Large shops	Medium / small shops	Markets	Street outlets	Bulk / discount shops	Specialized shops	Private service provider	Other service	
BAN	Bangladesh	70	-	-	70	-	-	-	-	-	-
BAN001	Div_Rangpur	5	-	-	5	-	-	-	-	-	-
BAN001001	Reg_Dinajpur	2	-	-	2	-	-	-	-	-	-
BAN001002	Reg_Rangpur	3	-	-	3	-	-	-	-	-	-
BAN002	Div_Rajshahi	8	-	-	8	-	-	-	-	-	-
BAN002001	Reg_Bagura	2	-	-	2	-	-	-	-	-	-
BAN002002	Reg_Rajshahi	4	-	-	4	-	-	-	-	-	-
BAN002003	Reg_Pabna	2	-	-	2	-	-	-	-	-	-
BAN003	Div_Dhaka	23	-	-	23	-	-	-	-	-	-
BAN003001	Reg_Jamalpur	2	-	-	2	-	-	-	-	-	-
BAN003002	Reg_Tangail	2	-	-	2	-	-	-	-	-	-
BAN003003	Reg_Kishorganj	2	-	-	2	-	-	-	-	-	-
BAN003004	Reg_Faridpur	2	-	-	2	-	-	-	-	-	-
BAN003005	Reg_Mymensingh	2	-	-	2	-	-	-	-	-	-
BAN003006	Reg_Dhaka	13	-	-	13	-	-	-	-	-	-
BAN004	Div_Chittagong	18	-	-	18	-	-	-	-	-	-
BAN004001	Reg_Noakhali	2	-	-	2	-	-	-	-	-	-
BAN004002	Reg_Bandarban	2	-	-	2	-	-	-	-	-	-
BAN004003	Reg_Rangamati	2	-	-	2	-	-	-	-	-	-
BAN004004	Reg_Chittagong	8	-	-	8	-	-	-	-	-	-
BAN004005	Reg_Khagrachori	2	-	-	2	-	-	-	-	-	-
BAN004006	Reg_Comilla	2	-	-	2	-	-	-	-	-	-
BAN005	Div_Sylhet	3	-	-	3	-	-	-	-	-	-
BAN005001	Reg_Sylhet	3	-	-	3	-	-	-	-	-	-
BAN006	Div_Barishal	5	-	-	5	-	-	-	-	-	-
BAN006001	Reg_Barishal	3	-	-	3	-	-	-	-	-	-
BAN006002	Reg_Patuakhali	2	-	-	2	-	-	-	-	-	-

Regions		Total	1	2	3	4	5	6	7	8	9
			Large shops	Medium / small shops	Markets	Street outlets	Bulk / discount shops	Specialized shops	Private service provider	Other service provider	Others
Regions		473	40	99	42	6	3	97	82	32	72
R01	Brest	59	3	22	8			9	17		
R02	Vitebsk	45	6	11	3			18	3	4	
R03	Gomel	73	5	26	7	1		19	12	3	
R04	Grodno	44	6	10	5	1		8	11	3	
R05	Minsk city	189	12	18	11	4	3	28	25	16	72
R06	Minsk region										
R07	Mogilev	63	8	12	8			15	14	6	
R08											

Outlet types refer to Annex 2

Do these differences affect welfare and poverty measures?

	sampleframe	% of CPI items used in ICP	
Azerbaijan	54 cities/town		73%
Ukraine	capital city		6%
Poverty rate	H(\$5/day in 05PPP)	H(in 2011 PPP)	
Azerbaijan	45.3%		12.8%
Ukraine	10.3%		10.3%

Price Level Index (PPP/official exchange rate) by subcomponent of HH consumption

US=100					
	Cons. by HH	Food etc.	Housing etc.	Health	Education
Africa	47.9	77.8	28.6	24.5	16.5
Asia	46.0	62.9	33.4	25.6	19.4
CIS	53.6	79.7	20.9	31.6	13.5
OECD	105.4	114.0	101.9	88.9	61.8
LAC	81.2	94.3	57.6	50.7	31.9
West Asia	47.0	72.4	30.6	25.3	21.6

Do Weights Matter?

				Food share (%)	
		Cons. PPP	Food PPP	Survey	ICP
China	R	3.70	5.16	40.4	23.4
	U			36.3	
India	R	14.98	20.87	52.2	29.8
	U			43.8	
Vietnam		7624.97	11848.21	46.0	27.8
Ethiopia		5.44	8.87	53.3	38.2
Nigeria		79.53	147.01	58.1	40.4
Food share is food spending over total spending (%)					

Price movement of CPI and ICP between 2005 and 2011

	2005	2011	2005	2011
Category Description	CPI	CPI	PPP	PPP
Food and Non-Alcoholic Beverages	100	214.1	697.10	902.69
Alcoholic Beverages, Tobacco and Narcotics	100	169.5	586.29	537.79
Clothing and Footwear	100	183.8	624.79	702.97
Housing, Water, Electricity, Gas and Other Fuels	100	196.0	551.96	493.52
Furnishing, Household Equipment and Routine Maintenance of the House	100	176.7	670.86	1099.13
Health	100	193.5	85.71	167.37
Transport	100	195.2	771.86	765.57
Communication	100	94.6	589.10	709.62
Recreation and Culture	100	136.8	592.41	704.13
Education	100	266.5	62.70	120.07
Restaurant and Hotels	100	215.8	1036.73	626.36
Miscellaneous Goods and Services	100	178.6	551.74	754.77
Total	100	198.1	522.49	590.33

Weights use in CPI and ICP

National weight 2011		
	CPI	ICP
01. Food and non-alcoholic beverages	0.3974	0.3161
02. ALCOHOLIC BEVERAGES, TOBACCO	0.0282	0.0790
03. CLOTHING AND FOOTWEAR	0.1526	0.0554
04. HOUSING, WATER, ELECTRICITY, GAS AND OTHER FUELS	0.1080	0.1587
05. FURNISHINGS, HOUSEHOLD EQUIPMENT AND ROUTINE MAINTENANCE OF THE HOUSE	0.0564	0.0163
06. HEALTH	0.0178	0.0151
07. Transport	0.0896	0.1737
08. COMMUNICATIONS	0.0288	0.0324
09. RECREATION AND CULTURE	0.0309	0.0293
10. EDUCATION	0.0536	0.0464
11. RESTAURANTS AND HOTELS	0.0101	0.0191
12. Miscellaneous goods and services	0.0266	0.0586
Total	1.0000	1.0000

CPI and ICP 2011: Items and overlap

Category Description	CPI*	ICP	Overlap
Food and Non-Alcoholic Beverages	93	202	49
Alcoholic Beverages, Tobacco and Narcotics	8	15	4
Clothing and Footwear	58	94	33
Housing, Water, Electricity, Gas and Other Fuels	26	14	7
Furnishing, Household Equipment and Routine Maintenance of the House	42	104	23
Health	14	72	7
Transport	18	56	12
Communication	10	15	2
Recreation and Culture	30	92	6
Education	3	8	1
Restaurant and Hotels	6	23	2
Miscellaneous Goods and Services	21	50	9
Total	329	745	155

Possible adjustment

- Sample
 - Adjust regional prices, and/or rural and urban price
- Weights
 - CPI will keep unchanged if replacing CPI weights by ICP weights
 - Use CPI weight in PPP estimation?
- Item list
 - Use subset of 2011 ICP items, i.e. the overlap with household survey or CPI;
 - Or common set in which price data were collected at 2005 and 2011 ICP rounds

Looking forward

- Poverty basket – reduced item list
- Using household survey weights
- Consistency and Extrapolation of ICP Benchmarks
- Use same ICP sample cross country – i.e. PPP estimates are only based on the ICP data collected from capital city
- Spatial prices adjustment and regional ICP data

Atkinson Report

- Recommendation 10: The global poverty estimates should be updated up to 2030 on the basis of the international poverty line for each country set in local currency, and updated in line with the change in the national CPI or, where available, national index of prices for the poor; **the estimates would not be revised in the light of new rounds of the ICP.**