

How Many Poor People Should There Be? A Rejoinder to Ravallion

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How many poor people should there be? To this apparently simple question, the world's governments have given two unanimous answers. One is enshrined in the 1948 *Universal Declaration of Human Rights*:

Everyone has the right to a standard of living adequate for the health and well-being of himself and of his family, including food, clothing, housing and medical care (Article 25).

Everyone is entitled to a social and international order in which the rights and freedoms set forth in this Declaration can be fully realized (Article 28).

There is to be no poverty at all, then, at least no severe poverty that would jeopardize the ability of human beings to meet their basic needs.

The other answer, also adopted unanimously, is rather different. It sets an acceptable extreme-poverty level for 2015, which is presented as a halving of such poverty by that date. The interpretation of this goal keeps changing. At the 1996 World Food Summit in Rome, 186 governments agreed on “reducing the *number* of undernourished people to half their *present* level no later than 2015.”¹ Greatly boosting the political importance of the extreme poverty statistics the World Bank had been supplying since 1990, the first Millennium Development Goal (MDG) then promised “to halve, by the year 2015, the *proportion of the world's people* whose income is less than one dollar a day and the proportion of people who suffer from hunger.”² The UN and its MDG administrators have since decided that this proportion is to be calculated as a percentage not of world population, but of the faster-growing population of the less developed countries, and that the benchmark year for this and all MDGs should be not the year of their adoption (2000), but 1990.³ The fate of

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¹ Rome Declaration on World Food Security, 1996, www.fao.org/wfs, my emphasis.

² *UN Millennium Declaration*, General Assembly Resolution 55/2, 2000, www.un.org/millennium/declaration/ares552e.htm, my emphasis.

³ In terms of the Bank's international poverty line (IPL) at the time, these two reinterpretations of the stated Millennium Declaration goals have increased, by roughly 250 million, the number of those whose confinement below the Bank's IPL in 2015 will be deemed acceptable and have thereby cut the envisaged reduction in the number of extremely poor people to less than 20 percent (Pogge 2004 and Pogge 2008: 11-13). In terms of the Bank's recently revised IPL, and the new, much higher extreme poverty figures associated with it, the two reinterpretations are raising the acceptable 2015 extreme poverty figure by 413 million, from 836 million to 1,249 million (Chen and Ravallion 2008, Tables 4 and 5).

billions is gravely affected by these as well as by additional decisions about how the evolution of extreme poverty is assessed by the UN and the World Bank. It is in this context that Sanjay Reddy and I have joined the poverty measurement debate.

One more piece of background. With some 18 million (30 percent) of human deaths each year attributed to poverty-related causes (WHO 2004: 120-25), the scale of the world poverty problem is staggering in human terms. But in economic terms, the problem is paltry. The Bank now acknowledges that 1.4 billion human beings are living in extreme poverty: below its new international poverty line (IPL) of \$1.25 per day (at 2005 purchasing power parities or PPPs) and 30 percent below this level on average (Chen and Ravallion 2008: 31, 36). Yet this entire shortfall is said to amount to only 0.33 percent of global GDP (ibid.: 23). Using a less extreme definition of poverty, some 2.6 billion people are reportedly living below \$2.00 per day (at 2005 PPPs) and nearly 40 percent below this line on average (ibid.: 31, 36). Even their entire shortfall still amounts to only 1.30 percent of global GDP (ibid.: 23).⁴ This shows that, for the sake of comparatively trivial gains, the world's governments — and we all — are keeping billions trapped in life-threatening poverty by imposing on them the heavy burdens facilitated by the global institutional architecture, such as debt obligations incurred by their rulers, public spending restrictions to ensure national debt repayment, monopoly prices for medicines, and protectionist barriers to trade (Pogge 2008).

Coming to Ravallion's reply, let me emphasize strongly that our concern has always been with the soundness of the Bank's measurement methodology. We are not questioning the integrity of the Bank's researchers. Our main contact at the Bank has been Ravallion's colleague, Shaohua Chen. Without her prompt, full, patient, and cheerful collaboration, we could not have analysed and reconstructed the Bank's calculations to anything like the extent we have done. Ravallion is entitled to his Nixonesque protestation, of course. But it is not responsive to anything we have written. Nor does his being no "real scoundrel" (MR herein: ***) help show that his method is sound.

Responding to us, Ravallion writes:

The fact that we judge the extent of consumption poverty in the world by the standards typical of low-income countries clearly does not mean that we are underestimating the extent of world poverty. Obviously if you use a higher standard you will get a higher poverty count. The "\$1/day" line does not claim to be anything other than a poverty line typical of poor countries. To say that we are underestimating poverty by

⁴ The average shortfall of those living below some poverty line is the ratio of the relevant poverty gap and headcount indices provided in Chen and Ravallion 2008: Tables 9 and 6, respectively. These calculations are performed in terms of PPPs. Valued at market exchange rates, the global poverty problem is substantially smaller still.

this method is like saying that one underestimates length using a ruler calibrated in inches rather than centimeters. If one knows how the ruler is calibrated there should be no confusion. (MR herein: ***)

This statement repeats many of the mistakes and confusions we have been criticizing. Let me go through them.

(1) Ravallion is right that one is not underestimating the length of a table when, measuring in inches, one assigns it the number 50 — even if, measured in centimetres, its length is 127. He is right to suggest that it would be silly to object, to one method and the results it delivers, that another method would deliver different results. But we are not raising this silly objection. Our objection is that the Bank is using a method that is seriously flawed in the following ways.

(2) The Bank has defended the *level* of its latest IPL as “anchored to the [domestic poverty] lines found in the poorest countries” (Chen and Ravallion 2008: 9). The “anchoring” is a bit loose. In its first exercise, the Bank chose \$1.02 (1985 PPP) as the IPL on the ground that the domestic poverty lines of *eight* countries were *close to* this amount. Later, it chose \$1.075 (1993 PPP) as the IPL because it is *the median of the ten lowest* domestic poverty lines. And for its most recent exercise the Bank is choosing \$1.25 (2005 PPP) as the IPL because it is *the mean* of the domestic poverty lines *of the 15 poorest countries* — 13 of which are small states in Africa (ibid.: 10).

To make matters worse, the domestic poverty lines relied upon are not exactly “found” by the Bank, but in many cases set by or in collaboration with the Bank itself (ibid.: 9). There was no examination of whether these lines reflect a level of income or consumption sufficient to meet basic human requirements.

Ravallion responds that it does not matter how high or low the IPL is fixed. Once it is understood how this line is calibrated, there should be no confusion: poverty is whatever the Bank’s method measures.⁵

Indeed, there is no confusion. But it does matter how high or low the IPL is set. This matters to the reported headcount trend, which looks ever prettier the lower the IPL is set.⁶ It also matters insofar as millions go hungry above the Bank’s IPL and are consequently ignored in the MDG-1 exercise and by the affluent.

⁵ Analogous to Edwin Boring’s (1923) famous definition of intelligence as whatever these tests measure — or indeed Jacob Viner’s crack that economics is what economists do.

⁶ The Bank’s new poverty figures readily confirm this point. Between 1981 and 2005, the reported change in the number of people deemed poor by the Bank’s \$1.00, \$1.25, \$2.00, and \$2.50 per day (2005 PPP) standards was minus 43 percent, minus 27 percent, plus 2 percent, and plus 15 percent,

Is the Bank's IPL set at a reasonable level? We have already seen that the goal of eradicating poverty would still be quite feasible if the IPL were set at \$2 a day rather than at \$1.25 (2005 PPP): relative to the \$2 a day standard, there would be 2.6 billion poor people — 40 percent of humanity — collectively living on 2 percent and collectively lacking 1.3 percent of global GDP. Assessed at market exchange rates, the eradication of poverty so defined would require a shift of well under 1 percent of global GDP.

But isn't \$2.00 a day rather too sumptuous as a poverty line, and doesn't the Bank's \$1.25 (2005 PPP) standard better capture what it means to escape poverty? One can approach this question by converting the Bank's IPL into the currency of one's own country and year, using the conversion methods the Bank uses while claiming that they preserve equivalence of purchasing power. Following this approach, we find that, in the US in 2008, income or consumption of \$1.41 per day would get a person counted as non-poor.⁷ People living in the US strictly on what can be bought with this amount — \$514 per year — would clearly be unable to meet their basic needs.⁸ Insofar as the Bank's conversions indeed preserve purchasing power equivalence, we can conclude that its IPL is equally inadequate when converted into local currency unit (LCU) amounts for other country/year settings. Insofar as the Bank fails to register as poor many people who cannot meet their most basic needs, its criterion of poverty is at odds with how its readers understand this word. More importantly, by systematically ignoring very large numbers of people in life-threatening poverty, the Bank is providing misleading information to policy makers about the distribution and trend (see note 6) of severe poverty, and grossly misleading information to all of us about the magnitude and seriousness of our responsibility to structure the world economy so that severe poverty is reliably avoided.

respectively. And similarly for the shorter 1990-2005 period, where the change relative to the same four lines is given as minus 33 percent, minus 23 percent, minus 6 percent, and plus 2 percent, respectively. Clearly, the lower the IPL is set, the easier it is to meet MDG-1.

⁷ Following the Bank's method, I have here converted its latest IPL — defined as \$1.25 per day in 2005 US dollars (USD) — via the US consumer price index (www.bls.gov/data/inflation_calculator.htm, accessed 1 September 2008). The Bank's earlier IPLs — \$1.02 (1985 PPP), \$1.00 (1985 PPP), 1.075 (1993 PPP) — have higher equivalents in 2008 USD, namely \$2.09, \$2.04, and \$1.64, respectively (*ibid.*).

⁸ The unabridged version of our paper (www.socialanalysis.org) cites evidence that such an amount is not nearly sufficient to meet even just the food needs of a human being. The elaborately designed thrifty food plan (USDA 1999) is an equal-cost revision of the Economy Food Plan first presented in 1961 “as a nutritionally adequate diet for short-term or emergency use.” The lowest cost stated for this minimal diet was \$80.40 per person per month in 1999. The Bank counts as non-poor anyone who lived in the US in 1999 on \$32.44 per person per month (www.bls.gov/data/inflation_calculator.htm, accessed 1 September 2008). Such a person could have bought about 40 percent of the USDA's emergency diet — but only by spending *nothing* on clothing, shelter, health care, and everything else.

(3) How does the Bank derive its IPLs from domestic poverty lines which, after all, are denominated in many different currencies? And how, more generally, does it compare individual incomes and consumption expenditures denominated in diverse currencies?

Such *cardinal* comparisons — presupposed in averaging — are not as straightforward as Ravallion's analogy to lengths makes them seem. The income of a poor Indian may be higher than that of a poor Mexican in terms of the amount of rice each can buy and yet lower in terms of the amount of meat or gasoline. The comparison of incomes — or expenditures or domestic poverty lines — denominated in different currencies must somehow aggregate over such price data to arrive at an overall judgment of the form: the Indian's Rupee income is worth n times as much as the Mexican's peso income.

The Bank's comparisons have been relying on general-consumption PPPs of some specific base year for converting domestic poverty lines from this base year into USD of the same year. The Bank's successive IPLs were defined in different PPP base years: 1985, 1993, and 2005. Once it has defined an IPL in USD of a specific base year, the Bank then uses the same PPPs to convert this IPL into all local currencies of the same year. The resulting LCU amounts are then converted further via national consumer price indices (CPIs) to extend the IPL to other years.

Reddy and I have long been pointing out that the quality of the PPPs so heavily relied upon by the Bank's method is highly questionable, especially for the most important countries China and India. Startled by the Asian Development Bank's recent re-evaluation of PPPs, the World Bank now accepts this point, claiming that it had previously assigned about twice as much purchasing power to the Chinese and Indian currencies as they are really worth (Chen and Ravallion 2008: 8). The Bank offers this overestimate in explanation of the dramatic 50-percent hike in its reported 2005 global extreme poverty figure. It gives the number of extremely poor as 931.3 million relative to its \$1.075 (1993 PPP) IPL and as 1399.6 million relative to its new \$1.25 (2005 PPP) IPL (ibid.: Table 5). Under point (7) below, I will argue that the Bank's dramatic revision reflects not merely bad inputs, and unnecessary ones at that, but a bad method as well.

Let me reiterate that the PPPs employed even in the Bank's latest poverty measurement exercise are highly questionable. Noting that the latest "price survey for China was confined to 11 cities [and] some surrounding areas," the Bank chose to "use existing differentials in urban-rural poverty lines ... to correct the national PPP for the purpose of measuring poverty" (ibid.: 11). Such a "correction" of China's PPP based on existing poverty lines is evidently highly conjectural and moreover ignores that prices in China vary more by province than by rural versus urban (Heston 2008: 68). The employment of a single averaged PPP for all of India is similarly distorting, although greater efforts were undertaken in India than in China to collect rural prices.⁹

⁹ See siteresources.worldbank.org/ICPINT/Resources/Indian_country_report.pdf.

(4) Even if all prices were perfectly uniform in each country and general-consumption PPPs were then calculated for all currencies to everyone's satisfaction, reliance on such PPPs in the context of the Bank's poverty measurement exercise would still be highly problematic. We make two objections in particular. One objection is *commodity irrelevance*. Generally, the more spending some commodity attracts, the more its price will influence calculated PPPs. This is problematic because many commodities are irrelevant to poverty avoidance. Used for purposes of poverty assessment, PPPs are influenced far too much by the prices of luxury goods and services, which the poor cannot afford and do not really need, and influenced far too little by the necessities that are most needed by the poor and on which they concentrate their spending.¹⁰ The fact that an income suffices to meet basic human needs is no assurance, then, that a PPP-equivalent income in another country is similarly sufficient. In poor countries, prices of necessities are often higher, and prices of services lower, than what the PPP to the USD would suggest.

A numerical example may illuminate the point. Imagine a simple world with three commodities: *necessaries*, *discretionaries*, and *services* (always in this order). Suppose the prices of these three commodities are LCU 5, 6 and 1 in some poor country and \$3, \$4 and \$9 in the US. What is the PPP? The answer depends on the spending pattern in both countries. Suppose this pattern, in percent, is 30, 50 and 20 in the poor country and 10, 50, and 40 in the US. This yields a PPP (calculated by the Bank's method) of 1.55: each LCU is deemed equivalent to \$1.55. But in reference only to necessities, priced at LCU 5 and \$3, each LCU is worth only 60 cents. The Bank's reliance on general-consumption PPPs ensures that, wherever the actual price of necessities higher than what such PPPs suggest, many who are very poor, relative to what they really need to buy, do not show up in the Bank's extreme poverty statistics.

There are indications that the Bank will try to address this problem by elaborating PPPs for the poor (PPPPs) based on the actual consumption pattern of the poor. This is an extremely complex undertaking because of the interdependence of three identifications. To ascertain what the poor are actually consuming, the Bank must be able to identify who the poor are. To do this, the Bank must identify the level of the IPL and the PPPPs for converting this line into all currencies. To identify the level of the IPL, which the Bank does by averaging the domestic poverty lines of the poorest countries, the Bank needs PPPPs to make those domestic lines comparable. Each of the required identifications — of PPPPs, of the poor, and of the IPL — thus

¹⁰ For example, rice accounts for a fraction of one percent of household spending in the US and other affluent countries, and its price therefore plays a minuscule role in determining the PPP of the Indian rupee. But the price of rice is of very great significance for the real value of the rupees that very poor people in India have available to them.

presupposes the other two. This circularity problem will apparently be attacked through a complex iteration procedure.¹¹

This revision may be a step forward insofar as it cuts down the influence of price data about commodities that are irrelevant to the avoidance of poverty. Still, the revision is not fully satisfactory because the observed spending pattern of the poor sometimes fails to disclose what they need most. Unmet needs, ignorance, and advertising often lead poor people to spend some of their income on alcohol, tobacco, or quackery. Yet, unlike higher food prices, a higher price of cigarettes does not make them poorer in an intuitive sense: does not reduce their ability to meet their basic needs. Conversely, millions of poor people worldwide do not spend any money on buying patented medicines they urgently need. This fact does not show that the price of such medicines is for them irrelevant. In fact, this price is killing many of them. The observed spending pattern of the poor — itself heavily influenced by existing prices and other extraneous factors (tobacco advertising) — is not then a good indicator of what they require to meet their basic needs.

(5) Both PPPs and PPPPs are subject to another objection we have made: *country irrelevance*. Considering two countries in isolation, the PPP rate is calculated on the basis of the prices and consumed quantities of all commodities. For example, the more that is spent on services in the US, the more of an influence the prices of services in India and the US will have on the PPP of the Indian Rupee to the USD. Given that services are (relative to other commodities) especially cheap in India versus the US, high service consumption in the US raises the assessed purchasing power of the Indian Rupee and hence the assessed spending power of the Indian poor. Clearly, what Americans are spending their money on is wholly irrelevant to whether persons in India are poor or not. But the Bank's method makes the US spending pattern relevant to identifying the poor in India.

The problem is compounded once third countries enter the picture. Bilateral PPPs calculated without regard to other countries would not satisfy transitivity.¹² But it is, for various reasons, highly desirable that PPPs be transitive¹³ — so that, for countries A, B, C,

$$\text{PPP}(A,B) \cdot \text{PPP}(B,C) = \text{PPP}(A,C).$$

¹¹ Many thanks to Shaohua Chen for conveying information used in this paragraph, which I hope to have summarized accurately. See also Ravallion, Chen, and Sangraula 2008, 19-21.

¹² Intuitively speaking, transitivity fails because the left side of the equation in the text is substantially influenced by the spending pattern in country B, while the right side is not so influenced at all.

¹³ One pertinent reason is this. If PPPs were not transitive, then the Bank's poverty measurement exercise would not be robust with respect to the choice of base country. Then the relation between the domestic poverty lines of any two countries would change depending on which currency they are converted into and compared in.

To achieve such transitivity, the calculation of PPPs involves a final step that adjusts all preliminary bilateral PPPs to one another in a way that guarantees transitivity. This adjustment has the consequence that the PPP assigned to any local currency is affected by the prices and spending patterns not only of its home country and the US (base country), but also of every other country. In the Bank's method, then, the classification of any person as poor or non-poor is influenced not merely by the money she has and the prices she faces, but also by the prices and spending patterns of all countries included in the PPP exercise.

A move toward PPPPs would mitigate this problem. If the poor spend little on services, then the price of services in other countries will have little influence on the calculation of their currencies' PPPPs. But such calculations will still be excessively affected by the prices of commodities that are important only elsewhere. For example, if potatoes figure prominently in the spending of the poor in some countries, then India's PPPP will be significantly influenced by what potatoes cost in India and elsewhere. And the classification of Indians as poor or non-poor can then be significantly affected by potato prices even if potatoes are not, and cannot plausibly become, part of the diet of the Indian poor.

(6) Once the Bank has, through the use of PPPs, converted its chosen IPL into corresponding base-year amounts in all other currencies, it uses national CPIs to convert the results into LCUs for other years.

We object to this step as well. Tracking price changes in nationally consumed commodities, a country's CPI is influenced most by the commodities on which most is spent. Reliance on CPIs thus courts, once more, the risk of losing track of the prices of basic necessities. Falling prices of necessities may raise the real standard of living of poor people, even while their incomes are flat and the CPI is rising. Conversely, falling prices of electronics or services may cause the CPI to fall, even while biofuel demand is raising food prices. When this happens, poor people on constant incomes become even poorer in real life, but richer in the Bank's statistics.

This problem could be mitigated by constructing — in analogy to PPPPs — CPIs for the poor. Such CPIPs would cut down the influence of the prices of non-necessaries. But they would also, implausibly, cut down the influence of the prices of necessities that, because of their high price, are barely consumed by the poor. As far as I know, no revision toward CPIPs is currently being contemplated.

(7) Perhaps the most compelling evidence one can have that a method is no good is that its applications deliver mutually inconsistent results. We have presented such evidence (both analytic and empirical), showing that the Bank's method is not robust with respect to the PPP base year chosen. Unfortunately, this objection was not

understood. We were certainly not saying that new data should be ignored — a proposition Ravallion rightly refutes at length.

What then were we saying? The Bank's method requires comparing currency amounts from different countries and years. The Bank makes these comparisons in two steps. It converts each LCU amount into its base year equivalent, using the national CPI. It then converts the result into its base year USD equivalent, using base year PPPs. In this way, any income, consumption expenditure, and domestic poverty line — regardless of year, country, or amount — can be mapped onto a common cardinal scale calibrated in USD of some chosen base year.

Our objection is that this method is highly sensitive to the choice of PPP base years. A comparison of two monthly incomes — say 280 Canadian dollars (CAD) in 1980 with 831 Australian dollars (AUD) in 1999 — yields different results depending on the year whose PPP is used in the conversion. Here is one way the Bank has used to compare such amounts:

$$\begin{aligned} \text{CAD } 280 \text{ (1980)} &= \text{CAD } 544 \text{ (1993)} = \$426 \text{ (1993)} \\ \text{AUD } 831 \text{ (1999)} &= \text{AUD } 743 \text{ (1993)} = \$558 \text{ (1993)} \end{aligned}$$

But if the same two local currency amounts are compared via 1985 PPPs, then they turn out to be exactly equivalent. (We know this, because the Bank used 1985 as its PPP base year until 1999.) The choice of 1993 rather than 1985 as PPP base year raises the assessed purchasing power of *all* AUD amounts — prices, incomes, consumption expenditures — in all years by 31 percent relative to that of all CAD amounts. And the choice of 1985 rather than 1993 as PPP base year raises the assessed purchasing power of *all* CAD amounts in all years by 31 percent relative to all AUD amounts. The outcome of such income comparisons thus is heavily influenced by a factor that is obviously irrelevant to these comparisons: namely by the Bank's arbitrary choice of PPP base year.¹⁴

As our Table 1 (SR & TP herein: ***) demonstrates, such base year sensitivity — some of even much larger magnitude — is common across rich and poor countries alike. It is bound to occur, because conversions using CPIs and PPPs are based on very different consumption patterns: the Canadian CPI is based on the Canadian consumption pattern, the Australian CPI on the Australian, and the PPPs of 1985 and 1993 are based on the differing international consumption patterns of those years. No wonder, then, that different conversion paths yield diverse results.

¹⁴ Another way of bringing out the problem involves a circular journey of conversions. Using the Bank's method, we can convert our CAD 280 (1980) via 1985 PPPs into AUD 831 (1999) and then convert this amount back via 1993 PPPs into CAD 367 (1980). The blatant failure of transitivity — CAD 280 (1980) is surely not equivalent to CAD 367 (1980) — shows that the Bank's conversions do not preserve equivalence. Note that I am using in this section two earlier IPLs in my examples because I do not yet have access to country breakdowns for the new \$1.25 (2005 PPP) IPL.

The Bank's choice of PPP base year obviously also affects profoundly who is classified as poor. Let me illustrate this by considering China and Bangladesh which, as it happens, are related like Australia and Canada: the choice of 1993 rather than 1985 as PPP base year raises the assessed purchasing power of all Chinese amounts in all years by 31 percent relative to all Bangladeshi amounts — and *vice versa*. Now take any pair consisting of a Bangladeshi person in some year living below \$1.075 1993 PPP and a Chinese person in some other year living above this IPL and no more than 31 percent above the Bangladeshi. For each such pair, if 1985 is chosen as PPP base year, then the Chinese person is deemed poorer than the Bangladeshi. If 1993 is chosen, then the Bangladeshi is deemed poorer than the Chinese. The choice of base year affects then the classification of at least one of the two persons. The Bank's method makes the poverty classification of millions of people — today and in past and future years — dependent on the arbitrary choice of PPP base year. This is bad, because the Bank's choice of PPP base year is no more significant to the real situation of human beings than the weather on Jupiter.

The Bank now states that all its extreme poverty headcount figures based on its IPL of \$1.075 (1993 PPP) were far too low because it had overestimated the purchasing power of the currencies of many poor countries: “We find that the incidence of poverty in the world is higher than past estimates have suggested. The main reason is that the 2005 ICP price data suggest that past PPPs had implicitly underestimated the cost of living in most developing countries” (Chen and Ravallion 2008: 6). The idea here expressed is that one can use the PPPs of one base year (2005) to correct the PPPs of another (1993). To do this, one would have to rely on the national CPIs covering the intervening period: by adjusting the 2005 PPPs by the national rates of consumer price inflation between 1993 and 2005. Such reliance assumes that a circular journey — from 1993 USD to 2005 USD to 2005 LCU to 1993 LCU to 1993 USD — must lead back to the original amount. If this assumption were sound, then any three of these conversion rates would determine the fourth. But the assumption is false, because the four conversions in the circle are based on national and international consumption patterns that differ greatly from one another.¹⁵

(8) If we want to assess income poverty through a headcount measure, then we should find a more direct method than the Bank's: a method that focuses on the prices a person faces in order to determine whether her income suffices to meet her basic human requirements.

Ravallion misunderstands this proposal of ours in two respects. He writes that “they appear to be proposing to price a single bundle of goods in each country relative to a reference country” (MR herein: ***). What we have in fact proposed is to assess each

¹⁵ Another reason mentioned earlier is that bilateral PPPs are adjusted on the basis of data from all other countries so as to achieve transitivity. We see here en passant why it make no sense to insist that the latest available PPP base year is always best. This may be so when one seeks a snapshot of poverty in or near that year. But there is no such advantage with regard to the all-important trend figures delivered by the Bank. The choice of a later base year may give a more accurate picture of the end of the period, but only at the cost of a less accurate picture of its beginning.

person's income against "the cost of purchasing commodities containing relevant characteristics (for example, calorie content)" (SR & TP herein: ***) that are needed to achieve the basic requirements of human beings.

Ravallion also writes that we "ignore an important lesson from the literature on nutrition and poverty (and from common sense), namely that a given food energy intake can be attained in multiple ways, requiring very different levels of income" (MR herein: ***). We are not quite so ignorant. Our proposal was to define the poor as those whose income affords them *no* acceptable way of meeting their basic human requirements, given the cultural and environmental conditions they face. To be sure, what these nutritional and other basic requirements are, and what counts as an acceptable way of meeting them are matters for debate. There is certainly some need for judgment in specifying a poverty criterion of this kind, as there is in any poverty assessment exercise. But making such contestable judgments in the specification phase is certainly much better than choosing a criterion that — even after it has been fully specified — makes its results depend on arbitrary contingencies such as the Bank's choice of PPP base year and the prices and consumption patterns in all countries on earth. We have moreover argued that making such judgments should involve transparent participatory processes. This would be in contrast to the approach of the Bank which eschews public consultation behind a false façade of science-like objectivity.

Ravallion asserts that "the Reddy and Pogge (RP) critique collapses under even moderate scrutiny" (MR herein: ***). For the sake of the poor, one can only hope that the scrutiny of some readers will not be quite so moderate.

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