

Abstract for “Global Income Level Comparisons: The Sensitivity of Results Based on ICP 2011”

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With the release of the 2011 results of the International Comparison Program (ICP), the world has a more current view on income differences around the world. Yet the methodological and practical challenges in comparing economies at vastly different levels of development (Deaton and Heston, 2010) imply that a careful assessment is needed of the results. This will also allow us to draw lessons for future rounds of ICP.

In this paper, we focus on three elements of such an assessment. The first is a comparison of the 2005 and 2011 ICP results. These two benchmark rounds are broadly comparable and of high quality, so the changes in real income and in purchasing power parities (PPPs) are expected to hold economic significance. An important question that we aim to answer is whether the implied changes in PPPs over time are consistent with information about overall inflation (the standard approach) or whether either detailed inflation and spending patterns (Deaton, 2012) or movements in exchange rates and GDP growth (Ravallion, 2012) would have had more predictive power.

The second element relates to the so-called comparison-resistant services: government, health and education. As relative output prices for these activities are typically not observed, the current ICP approach is to use relative input prices, and specifically relative wages, to approximate relative output prices. However, wages can be low because (implied) output prices are low or because productivity is low. Given the substantial share of these activities in GDP, the method chosen for such productivity adjustments will have a substantial bearing on the final real income results. We will show the sensitivity of the ICP 2011 results to alternative productivity adjustments, illustrating (at the very least) the plausible range for relative income levels.

The third element is a more classical sensitivity analysis. Given the large differences in prices and income across countries, the results will be sensitive to the index number method chosen to combine detailed relative prices into an overall GDP PPP. We will examine various plausible alternatives to the World Bank approach, including the method used in constructing the Penn World Table. As in the earlier analysis of productivity adjustments, this will also give a plausible range for relative income levels.

These three analyses fit into a broader statistical and economic discussion. The statistical discussion is about how to arrive at reliable PPPs and relative income measures: is it possible to reliably forecast PPPs from a given benchmark and how does the prediction error from such a forecast compare with the uncertainty stemming from methodological choices regarding productivity adjustment and index number methods? The economic discussion centers on whether we can draw reliable conclusions on the level and trend of international income inequality. Anand and Segal (2008) argued, that the uncertainty on the trend in inequality was too large to draw firm conclusions. The analyses we propose will help determine whether we can be more certain now with the new ICP results in hand.

References

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