

Chapter 9

Milestones Achieved in the Poverty PPP Study, 2005 ICP Asia Pacific, and Future Work

Introduction

With the Asia and Pacific region being home to more than half of the world's poor, ADB made poverty measurement with the use of PPPs an integral part of the 2005 ICP Asia Pacific. At the inception stages, the compilation of poverty PPPs was earmarked as a major initiative of the 2005 ICP Asia Pacific.

At the outset, the principal goals of the poverty PPP study were to implement the methodology recommended by the PAG at the Global Office of the ICP located at the World Bank, and to compile a set of new PPPs specifically for the purpose of converting the IPLs of \$1/day and \$2/day. The conversion of the IPL into local currency units is an important first step in estimating the number of poor in the region. In recognition of the need to refine the process and to contribute to further development in the region, ADB conceived the poverty PPP study as a research initiative that would yield crucial information for the compilation of poverty PPPs. The study could not have been undertaken without generous financial assistance from the Department for International Development of the Government of the United Kingdom of Great Britain and Northern Ireland, and ADB.

A summary of the general findings of the study and avenues for future refinements are presented in this chapter.

Milestones Achieved

The poverty PPP study achieved several milestones and the findings are likely to have a significant influence on the methodology for compiling poverty PPPs in the future.

Sixteen of the 21 ADB member economies in the 2005 ICP Asia Pacific participated in the study. Among them were Bangladesh, India, Indonesia, and Pakistan, four of the eight most populous countries in the world. As the four considered measuring poverty as a major activity, their participation is likely to make the findings from the study relevant to other countries and regions of the world.

The methodology recommended by the PAG is a significant advance over the current use of PPPs from the ICP for converting the IPL. The PAG recommendation is to use the expenditure patterns of the poor, instead of national accounts weights used in the ICP, in combining price data collected as part of the ICP price surveys. Although the suggested methodology appears to be a simple first step, implementation is complex. In particular, its implementation required that a proper correspondence between the ICP basic headings and the consumption items in the HES be established. This difficult and resource-intensive task was undertaken by the Global Office at the World Bank. Once this correspondence was established, the next step was to undertake the complex task of implementing the iterative procedure devised by Deaton (2004).

The PAG methodology was successfully implemented and a set of poverty PPPs was compiled, thus achieving the principal goal of the study. The main finding is that the poverty PPPs based on the PAG methodology differ from the conventionally used consumption PPPs from the ICP.

Parallel to the work of implementing the PAG methodology, a major initiative in the 2005 ICP Asia Pacific was undertaken to further improve the methodology. This initiative entailed examining whether data collected on prices for items that are considered typical of the consumption patterns of the poor would produce significantly different poverty PPPs. This was a difficult task because it required separate price surveys, similar to those conducted in the 2005 ICP Asia Pacific for household final consumption.

Planning for the poverty-specific price surveys began after the surveys for the 2005 ICP Asia Pacific were completed. Through a series of workshops organized by the Regional Office of the 2005 ICP Asia Pacific at ADB, a product list along with detailed specification of products and outlets were prepared. The countries were briefed about the survey framework to be employed, and the poverty-specific price surveys were completed in most participating countries during the last quarter of 2006.

The poverty-specific price data collected by the participating countries were reviewed and the validation workshop held in April 2007 endorsed the use of the price data.

As part of the second stage of the study, the poverty-specific price survey data replaced the 2005 ICP Asia Pacific price data in the compilation of poverty PPPs. Basic heading PPPs estimated from the poverty-specific price survey data were used in conjunction with expenditure patterns of the poor. They had been compiled with the use of the iterative scheme applied on the 2005 ICP Asia Pacific data.

The study also examined the sensitivity of poverty PPPs to different ways of computing the expenditure patterns of the poor (use of democratic versus plutocratic weights); to different ways of identifying the poor households (those below the poverty line and those around the poverty line); and to the application of different index number methods

(the EKS, Geary-Khamis, and the weighted CPD methods) for aggregating price data. The results of the sensitivity test are mixed. They show a degree of robustness to different ways of computing expenditure patterns and to different ways of identifying the poor. However, different aggregation procedures appear to result in significant differences in the final PPPs. This study used the standard EKS method as the main aggregation procedure, but further research is required to develop more robust aggregation procedures.

The study also examined the problem of constructing the IPL. Using a method similar to that used by the World Bank in deriving the IPLs of \$1/day and \$2/day, the study focused on deriving an IPL for the Asia and Pacific region. The results show that the use of RM2.83/day was appropriate with PPPs from the PAG methodology, and RM2.945/day with PPPs based on the poverty-specific price surveys. The IPLs, expressed in US dollars, and converted using the consumption PPPs from the 2005 ICP global comparisons, are \$1.341/day for the PAG PPPs and \$1.376/day for the poverty-specific price survey PPPs. Again, consistent with the convention used by the World Bank in using \$1/day in place of \$1.08/day in 1993, the IPL for the Asia and Pacific region can be stated as \$1/day in 2005, or around RM2.90/day in terms of a regional currency unit. The IPLs were surprisingly insensitive to different methods and approaches except for the use of poverty-specific price surveys as the main source for PPPs.

A major conclusion from the estimates of poverty incidence is that, although the IPLs are fairly robust and are around \$1/day, the use of PPPs from the PAG methodology and from the poverty-specific price surveys appeared to make a significant difference in the estimates of poverty incidence in different countries. The use of PPPs based on poverty-specific price surveys had a significant effect of either increasing or decreasing the estimates of poverty incidence.

Direction of Future Work

The differences in PPPs computed with the use of price data collected through the poverty-specific price surveys reinforce the need to examine the methodology further and to expand the scope

and size of poverty-specific price surveys. There are several directions that the work on poverty PPPs can pursue.

Increase the Number of Countries Covered.

The 2005 ICP Asia Pacific included 21 member economies of ADB. There is scope to improve this coverage through the participation of the remaining 21 ADB member economies. The poverty PPP study covered only 16 countries. It is necessary to bring other ADB member economies into the study as poverty reduction is a major goal in most of those economies.

Consider a Regional Focus within Large Countries. During the workshops for the poverty PPP study, a strong subregional influence became evident on the types of commodities consumed by the poor. This influence was stronger on the poverty PPPs than on PPPs for the 2005 ICP Asia Pacific, perhaps because the poor tend to consume more of local products than international or multinational products. A related study could examine the feasibility of implementing this work in large countries like India and Indonesia. Compilation of poverty PPPs for regions within a country would be particularly significant to the participating countries.

Integrate Poverty PPP Work with Regular ICP, CPI, and HES. In the 2005 ICP Asia Pacific, ICP PPP and poverty PPP work were treated as separate projects with a much higher priority accorded to the ICP activities. The strategy was to ensure successful completion of the 2005 ICP Asia Pacific and to produce credible estimates of PPP at the GDP level. In future rounds of the ICP, it should be possible to coordinate and closely integrate the activities of the poverty PPP and the general ICP work to make both projects cost-effective. The comparative analysis of prices from poverty-specific price surveys and the unit values from HES also indicate possible synergies in the area of compiling appropriate price data for poverty PPP compilation. If HES in different countries were harmonized, then the task of using HES data for PPP compilation would be easier.

Conduct Research on Analytical Aspects.

There are a number of areas where further research on the theoretical foundations of the poverty PPP work should be undertaken. Several aspects concerning the iterative process and calibration of IPLs require

further research. During implementation, it was found that poverty PPP computations are too complex and labor-intensive. The simultaneous use of household expenditure data and PPPs in the iterative process was found to be difficult and time-consuming. Development of computer programs to automate the steps involved in implementing the iterative process would greatly benefit and also enhance the use of the methodology by the countries involved. The sensitivity analysis has shown that the results are sensitive to the use of different aggregation methods; sometimes, the differences are larger than those driven by differences in expenditure patterns.

Enhanced participation of ADB member economies in the poverty PPP study will further strengthen their statistical capacities. Conducting poverty-specific price surveys would help improve the infrastructure for price collection and facilitate price collection in rural and urban areas. Participation in the ICP, and in the poverty PPP study in particular, will help many ADB member economies improve their compilation of the CPI and help them compile CPI for the poor. Such indexes with special focus on the poor are likely to be very helpful in monitoring the effects of increasing prices—food prices in particular—on the welfare of the poorer sections of society.

The research study has achieved the major objectives identified at the outset. The first and primary goal has been to describe and implement the methodology recommended by the PAG. In the process of implementation, the study found that the results could be affected by the choice of the poverty line used as the basis for compiling expenditure share weights. Two poverty lines were used in the study, one based on an update of the 1993 poverty line of \$1.08 and the other one based on the Indonesian poverty line.

The main contribution of the study is to show that poverty PPPs calculated from poverty-specific price surveys can make a difference in the estimates of the IPL. The analysis presented here establishes the viability of price surveys specifically for poverty measurement. There is room for improvement in the preparation of the item lists and product specifications and in the conduct of price surveys. With the data collected from the poverty-specific price surveys compared and contrasted with limited data available

in the form of unit values from HES, the plausibility of price data from poverty-specific price surveys is determined.

The second contribution of the study is the compilation of poverty PPPs using different data sets and aggregation methodologies. The results show that the conventionally used PPPs from the ICP can be improved through the implementation of the PAG methodology, which advocates the use of expenditure weights of the poor. The results also show that significantly larger differences in PPPs result from

the use of data from poverty-specific price surveys. The results reported here clearly establish the need to examine the issue of conducting poverty-specific price surveys in future rounds of the ICP.

In conclusion, the poverty-specific price survey data had a significant effect on the magnitudes of poverty PPPs. The results of the poverty PPP study will have a profound effect on the methodology used in the computation of poverty PPPs in the future, at both national and regional levels.