Abstract for “An Index Approach to Assess the Reliability of Purchasing Power Parities in China”

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The introduction of representative products in International Comparison Program makes the purchasing power parities (PPPs) become a computable concept. The representative extent of the product list for the participating countries has important impacts on the reliability of PPPs and the global results. However, the measurement of representativeness and its induced biases in the estimated PPPs has not been carried out to our knowledge. Therefore, the paper designs a new index approach to assess the reliability of PPPs via representativeness. First, there exits the common products in the basket of goods in each country’s consumer price index (CPI) and the international baskets used in the ICP and thus we define the expenditure proportion of the common products to GDP at the same level named the Mini-Reliability Index (MRI) to measure the missing degree of representativeness in ICP. Then we calculate the Incremental-Reliability Index (IRI) in terms of incomparable products, whose expenditures accounting for the large proportion in the total. The reliability index equals MRI plus IRI. Because of the full participation of China and its significant role in ICP, we apply this new index approach to empirical assess the reliability of China’s PPPs in 2011 ICP. Reliability implications in this study would be helpful for measuring the real size of the world economy.