Income and price elasticity of demand for broad consumption items in African countries using the 2011 ICP-Africa results

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The study looks at the responses of African households of difference income levels to changes in their incomes and prices of the commodities they consume. The study utilizes data on prices collected by the African Development Bank through its international comparison program being implemented in 50 African countries. The data was mostly collected on a monthly basis over a period of 15 months ranging from January 2011 to March 2012. The data covered 12 broad consumption groups and over 1,036 products.

The 12 broad consumption groups include: food and non-alcoholic beverages; alcoholic beverages, tobacco and narcotics; clothing and footwear; housing, water, electricity, gas and other fuels; furnishings, household equipment and routine household maintenance; health; transport; communication; recreation and culture; education; restaurants and hotels; miscellaneous goods and services and net purchases abroad. The food category, which includes staples such as maize, bread and rice, comprises about a third of the items and approximately half of the consumption expenditure by households across Africa.

The study utilizes a two-stage cross country demand model to estimate the aggregate demand systems for the broad consumption categories as well as the food sub-category. In the first stage of estimation, an aggregate demand system is generated using the Florida Preference Independence Model which assumes strong preference separability in that consumption of items in other groups does not affect the order of preference among the items in one other particular broad group. In the second stage, the Florida Slutsky Model is used to generate a demand system for the food sub-category. The own price and income elasticities were computed using the procedure and formula outlined by Theil et al. (1989).