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“Development on the margin”

On the Relationship between the Share of Nutrient Consumed across Selected Food Groups and Income in Nigeria: A Long-run Demand System

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Abstract

The objective of this study is of two folds. First, to take a critical look at nutrient consumed and its trends and secondly, to examine the relationship between share of nutrient consumed across selected food groups and per capita income in Nigeria. Three nutrients consider in this paper are daily per capita calorie, protein, and fat intake based on annual series from 1961 to 2007 and supported by real per capita Gross Domestic Product (GDP) as a proxy for national income. The composition of nutrients is grouped into five homogenous and non-homogenous food categories. However, the preliminary analyses shows that all the variables were found to be I (1) process at initial level while the series become I (0) after first differences. Besides, we cannot reject the null hypothesis of no cointegration in the series which motivated the use of long-run demand system specified in the first differences to address objective two. However, the result of the objective one showed that the average calorie, protein and fat intake are still below the recommended daily allowance since 1960s in Nigeria. Further analysis, revealed that diets in Nigeria remained very much cereal-base with cereals and root & tubers providing about 46 % and 18 % of total calorie, respectively while cereals provide about 54 % of total protein intake in the country as against about 12 % from animal products. Vegetable oil provides about 62 % of fat consumed while cereals based food stuffs provide about 15 %. In addition, the results show that the calorie, protein, and fat intake are growing at the rate of about 0.32 %, 0.31 %, and 0.17 %, respectively, from 1961 to 2007. With regards to the objective two, we found evidence that the calorie share of animal products, protein share of oil crop and animal products, fat share of cereal and that of vegetable oil, oil crops and animal products significantly respond to the respectively total nutrient intake across the food groups. The income elasticities also show that calorie, protein and fat share of animal products respond positively but inelastic to the per capita income growth in Nigeria within a space and time.

Keywords: Consumption pattern, demand system, food groups, Nigeria, nutrient intake