

Welfare Dynamics and Food Prices' Changes: Evidence from Landholding Groups in Rural Pakistan

Authors : Lubna Naz, Munir Ahmad, G. M. Arif

Abstract : This study analyzes static and dynamic welfare impacts of food price changes for various landholding groups in Pakistan. The study uses three classifications of land ownership, landless, small landowners and large landowners, for analysis. The study uses Panel Survey, Pakistan Rural Household Survey (PRHS) of Pakistan Institute of Development Economics Islamabad, of rural households from two largest provinces (Sindh and Punjab) of Pakistan. The study uses all three waves (2001, 2004 and 2010) of PRHS. This research work makes three important contributions in literature. First, this study uses Quadratic Almost Ideal Demand System (QUAIDS) to estimate demand functions for eight food groups-cereals, meat, milk and milk products, vegetables, cooking oil, pulses and other food. The study estimates food demand functions with Nonlinear Seemingly Unrelated (NLSUR), and employs Lagrange Multiplier and test on the coefficient of squared expenditure term to determine inclusion of squared expenditure term. Test results support the inclusion of squared expenditure term in the food demand model for each of landholding groups (landless, small landowners and large landowners). This study tests for endogeneity and uses control function for its correction. The problem of observed zero expenditure is dealt with a two-step procedure. Second, it creates low price and high price periods, based on literature review. It uses elasticity coefficients from QUAIDS to analyze static and dynamic welfare effects (first and second order Tylor approximation of expenditure function is used) of food price changes across periods. The study estimates compensation variation (CV), money metric loss from food price changes, for landless, small and large landowners. Third, this study compares the findings on welfare implications of food price changes based on QUAIDS with the earlier research in Pakistan, which used other specification of the demand system. The findings indicate that dynamic welfare impacts of food price changes are lower as compared to static welfare impacts for all landholding groups. The static and dynamic welfare impacts of food price changes are highest for landless. The study suggests that government should extend social security nets to landless poor and categorically to vulnerable landless (without livestock) to redress the short-term impact of food price increase. In addition, the government should stabilize food prices and particularly cereal prices in the long- run.

Keywords : QUAIDS, Lagrange multiplier, NLSUR, and Tylor approximation

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