STRUCTURAL DECOMPOSITION ANALYSIS OF THE SOURCES OF GROWTH OF FOOD GRAINS IN INDIA DURING THE FIRST DECADE OF LIBERALIZATION (1993-94 TO 2003-04)

Topic: Structural change, SDA and dynamics

Author: Agnirup Sarkar

Co-Authors: Partha Pratim Ghosh

STRUCTURAL DECOMPOSITION ANALYSIS OF THE SOURCES OF GROWTH OF FOOD GRAINS IN INDIA DURING THE FIRST DECADE OF LIBERALIZATION (1993-93 TO 2003-04)*

Partha Pratim Ghosh (Corresponding Author)
Associate Professor, Department of Economics, St. Xavier's College (Autonomous), Kolkata

Agnirup Sarkar Research Officer, Department of Economics, St. Xavier's College (Autonomous), Kolkata

Abstract

This paper addresses the issue of growth of food grains in India during the first decade of India's liberalization experience by developing and applying a suitable model of Structural Decomposition Analysis (SDA) in the Input-Output framework. India's Input-Output tables of 1993-94 and 2003-04 are compared using a suitable aggregation scheme. The methodology concentrates on Domestic Demand, Export Expansion, Input-Output Coefficients and Import Substitution as the four main sources of growth. Eight food grain sectors are considered. While the outputs of Paddy, Wheat, Bajra, Maize, Gram, Pulses and Groundnuts have increased, the output of Jowar has declined between 1993-94 and 2003-04. Excepting for Wheat and Jowar, all other sectors show growth in output due to domestic demand. Again, apart from Jowar, all the remaining seven food grain sectors have experienced expansion in exports. Only three sectors, namely Bajra, Gram and Groundnuts indicate an improvement in the efficiency of usage of intermediate inputs as shown by changes in the Input Output Coefficients. The remaining five sectors do not show improvement in the Input Output Coefficients. Four sectors, namely Jowar, Bajra, Pulses and Groundnuts show negative Import Substitution. The other food grain sectors show an increase in import coefficients. Overall, expansion of Domestic Demand has been the single-most important factor explaining the growth of food grains during the period under study. Exports have also made a positive impact, albeit of a lower magnitude. There is a lot of scope for increasing technical efficiency in the use of intermediate inputs in the food grain sectors. Finally, the impact of Import Substitution has not been significant during this period. It emerges that this technique has a lot of potential in carrying out farther detailed empirical investigations in this area.

*This paper is based on some preliminary investigations carried out under the Indian Council of Social Science Research Project entitled "Sources of Growth of Food Grains in the Indian Economy in the Pre-Reform and Reform Periods" awarded to Dr. Partha Pratim Ghosh of St. Xavier's College (Autonomous) Kolkata, India, in March 2011.