

Identifying and Understanding the Structural Break in Meat Demand in the USA

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Abstract:

This paper explores the location, source, and effects of the suggested structural break in meat demand (specifically for beef, pork, poultry, and fish) in the USA. In order to identify the location of the break, the Chow test is performed in the first differenced LA/AIDS model estimated using Iterated Seemingly Unrelated Regression (ITSUR). The results show that the suggested structural break in meat demand in the USA did occur in the late 1970s. In the understanding step, to identify the real source of the structural break in meat demand, the dummy variable approach is employed to incorporate the structural break parameters into first differenced LA/AIDS model by using two different cases of structural break—pure and partial cases. It is found that meat expenditure is the most significant source of the structural break. Finally, the data is split into two, and the parameters in meat demand functions such as Marshallian, Hicksian, and Morishima elasticities, as well as the differences in elasticities, are estimated in the first differenced LA/AIDS model to analyze the effects of the structural break. A thorough comparison of elasticities indicated that the demand structure of beef, pork, poultry, and fish have changed significantly.

Keywords: Structural Break, Meat Demand, LA/AIDS Model

JEL Codes: D12, Q11, C32