

Estimation of beef supply and demand in Peninsular Malaysia: an application of cointegration and error correction model techniques

ABSTRACT

This study estimates a complete system of supply-demand equations and analyzes the effects of income and price changes on demand, age of animal, technology, and quantity of imported beef on local beef production. The cointegration and error correction model techniques were applied to the analysis of beef supply and demand in Peninsular Malaysia. Results indicated positive and significant supply response of price for each category of female cattle and buffalo age cohort. However, female cattle over 3 years of age were significant decision variables on the number of cattle (buffalo) to be slaughtered for beef production. On the demand side, expenditure and price of competing meats were the main factors that affected the quantity of beef consumed. The number of breeding cattle/buffalo should be increased through imports to retain a higher number of female calves and to improve the local beef cattle population.

Keyword: Beef; Elasticity; LAIDS; Meat; Peninsular Malaysia; Supply and demand; VECM