LIVESTOCK PRODUCTS DEMAND IN INDONESIA: CHOOSING BETWEEN AIDS AND ROTTERDAM DEMAND MODELS

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ABSTRACT

This paper examines the livestock products demand in Indonesia. This objective is accomplished by estimating a food demand model using Almost Ideal Demand System (AIDS) and Rotterdam model, and choose an appropriate demand model which best fits the data. A test to choose among the alternative joint model specifications is provided and the methodology is applied to data on demand for livestock products i.e. meat, egg, and milk. . To make consistency with Rotterdam form, first difference LA/AIDS is applied in this study. The estimated parameters find the reasonable sign and significant for the most part of the coefficient. Own price elasticity shown negative sign, indicating that meat, egg and milk are sensitive to prices except for egg in the first differences LA/AIDS model. Real expenditure has significantly effect to the consumption of livestock products. The joint model approach was used to select the appropriate model in this study results that the first difference LA/AIDS or the Rotterdam models are both appropriate to represent Indonesian livestock products demand. For the discrimination of the models, the goodness-of-fit (adjusted R^2), forecasting accuracy (RMSE) and the elasticity of the demand models are also considered to measure the best model. The first difference LA/AIDS model fits well as reflected by its higher adjusted R^2 and the lower RMSE relative to the Rotterdam model. The LA/AIDS model accommodates the high elasticities better than the Rotterdam, since AIDS performed well.

Keywords: livestock products demand, Rotterdam model, Almost Ideal Demand System (AIDS) model, joint model