

Title: **Supply and Demand Analysis for Mussels in the Eu Market**

Authors: Thong Tien Nguyen, Southern Denmark University (Denmark)

Abstract: This study analyzes supply and demand system for the mussels in the EU markets. The results show that farmed and wild quantity of two main species of mussels, *Mytilus edulis* and *Mytilus galloprovincialis*, have declined in recent years due to limits of seed and space. However, a demand system analysis proves that the decrease will raise price of the products in the EU market. Inverse Almost Ideal Demand System (IAIDS) is applied for farmed and wild mussels show the two products are inelastic and less competitive. Own quantity flexibilities of farmed and wild mussels are -0.98 and -0.83, while scale flexibilities are -1.1 and -0.86, respectively. Wild mussels have low quality and are usually sold in frozen forms, while farmed mussels has higher quality and are supplied mainly in fresh forms. The quality difference explains why cross-quantity flexibilities of farmed and wild products are marginal at -0.13 and -0.023, respectively. The demand system with month-dummy variables satisfies all restrictions of adding-up, homogeneity, symmetry, and explains for 89% the variance (R^2). Method of maximum likelihood estimation also shows that non-linear form is more appropriate for time series data in the study than a linear equation.

Keyword: mussels, supply, inverse demand system, IAIDS, EU.