U.S. Import Demand for Smoked Herring

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Abstract: U.S. imported 2.3 million metric tons of smoked herring in 2007 costing $707,000. Hence it is important to investigate factors influencing the importation of smoked herring into the US. We used time series data from 1976 to 2007 to estimate an import demand function: log(Mt) = a0 + a1*log(Pt) + a2*log(CPlt) + a3*log(et) + a4*log(Yt) + a5*log(Mt-1) + ut

Where Mt is importation in thousand metric tons, Pt is imported price in dollars per ton, CPI represents domestic price, et is the exchange rate, Yt is personal disposable income in US dollars, Mt-1 is a partial adjustment factor, and ut is an error term. The model has a good fit and the R2 is 0.45. Serial correlation is not an issue since the DW is 1.95. All variables have anticipated signs and model results show that a 1.0% increase in import price will result in a 0.8% reduction in quantity imported, whereas a 1.0% increase in domestic price will generate a 1.80% increase in imports meaning that the product is a substitute for domestic smoked herring. The exchange rate coefficient is positive indicating that importation will increase with appreciation of the dollar. The negative income elasticity indicates that imported smoked herring is an inferior good. The partial adjustment coefficient is insignificant implying that there is immediate full adjustment. The results suggest that US consumers consider imported smoked herring a substitute, and with a strong dollar importation will increase, even though imported smoked herring is an inferior good.