

Factor Content of Trade: Nonhomothetic Preferences and "Missing Trade"

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Abstract

The Heckscher-Ohlin-Vanek (HOV) theorem predicts whether a country will be a net exporter of services of a certain factor and the volume of the factor content of trade given the country's and the world's factor endowment information. Recent empirical work has documented that the measured factor content of trade is too small compared to the theoretical prediction and named this special pattern of the data "missing trade". This paper constructs a general equilibrium trade model with nonhomothetic preferences and analyzes how nonhomotheticity in consumption can reduce the predicted factor content of trade. It shows first in a simple model with two factors, two goods and two countries that the HOV theorem over-predicts the factor content of trade under certain conditions. Income elasticity of consumption of factor services is defined by examining the link between factor intensity of goods production and income elasticity of goods consumption in a generalized model with arbitrary numbers of goods, factors, and countries. The examination of the relationship between per capita income, income elasticity of factor consumption, and the factor content of consumption reveals that relatively rich countries must on average consume services of income elastic factors more than proportionately while consuming services of income inelastic factors less than proportionately. An indicator is devised to directly compare the volume of factor content of trade predicted by nonhomothetic preferences with that predicted by HOV. Direct comparison of this indicator for the respective assumptions suggests that the missing trade can in part be attributed to the excessive trade prediction of the HOV theorem with homothetic preferences. This result holds to the extent that income elastic factors are on average abundant in rich countries and income inelastic factors are on average abundant in poor countries.

Key words: Factor content of trade; Income elasticity; Nonhomothetic preferences

JEL Classification: F11