Essays in International Trade:
Measurement, Product Quality, Input-Output Modelling and Tax Evasion

av

Lars M Widell

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Opponent: Professor Joakim Gullstrand
Ekonomihögskolan, Lunds universitet,
Lund
Abstract

This thesis consists of four independent essays that deal with several measurement aspects within the field of international trade. The measurement problems addressed are related to measuring the human capital content of trade in exports relative to imports or measuring tax evasion.

Essay 1, *The Human Capital Content of Trade and its Measurement. Evidence from Swedish Data*, deals with various measurement problems related to calculations of the human capital content of trade in exports relative to imports. This builds on the Heckscher-Ohlin-Vanek extension to the Heckscher-Ohlin trade theory.

Essay 2, *Product Quality Adjustment and the Human Capital Content of Trade. A New Computational Framework*, builds on the same theoretical background, but introduces a quality-adjustment in the calculations of the human capital content of trade in exports relative to imports, which builds on the idea underlying vertical intra-industry trade (VIIT). Quality adjustment is performed, first, by assuming that a product sold at a higher price has a higher quality than the same product sold at a lower price and, second, by assuming that a high-quality product implies a higher content of skilled labour than a low-quality product.

Essay 3, *Estimation of commodity-by-commodity input–output matrices*, focuses on a new method in constructing symmetric input-output tables (SIOTs), which has been termed the Bohlin and Widell model, using data contained within supply- and use-tables (SUTs). One key contribution is that it makes it possible to estimate SIOTs in cases when the underlying SUTs are rectangular. The method also addresses the problem of negative coefficients, a long-standing issue encountered in the derivation of SIOTs.

Essay 4, *Tax evasion in Kenya and Tanzania: Evidence from missing imports*, focuses on estimating the amount of tax evasion in trade between Kenya and Tanzania. The study is empirically focused, and the measurement errors in reported trade flows between both countries are correlated with tax rates, to determine whether the measurement error increases with the tax rate.

*Keywords*: Factor content of trade, human capital, vertical intra-industry trade, product quality, Input–output modelling, CTA, ITA, Tax Evasion, Africa

Lars M Widell, School of Business
Örebro University, SE-701 82 Örebro, Sweden, Lars.Widell@oru.se