

A resource augmentation characterization of the gains from trade¹

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April 2011

Abstract

Following Samuelson's seminal 1939 contribution, existing measures of the gains from trade are rooted in consumer theory. We propose a resource augmentation characterization of the welfare effects from trade which generalizes David Ricardo's 1817 labour value formulation to the multi-factor case. Our measure has several attractive features: (i) it is not based on any parametric assumptions on the demand side of economy; (ii) it provides inference about the sources of the gains from trade; (iii) in some instances, the gains from trade can be expressed in terms of physical endowment gains. We employ this measure to 19th century Japan where we are in the domain of a neoclassical economy with high quality data on task-based resource requirements at the time of the economy's opening up to trade after 200 years of autarky. We provide causal empirical evidence on gains from trade and find that the gains were characterized by Ricardian augmentation of the female labour force.

JEL classification: F11, F14, N10, N75.

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