Intra-Industry Trade and Differences in Technology

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Introduction

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Differences in Technology and Industry-Trade and

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Differences in available technology reduce intra-industrial trade flows.

A TRADE MODEL WITH DIFFERENTIATED GOODS AND TECHNOLOGY

For the sake of simplicity, assume that a representative economy consists of two commodity-producing sectors. The externalization of intra-sectoral trade is accomplished by an informational role trade.

Intra-industry trade
demand of a domestic firm producing a differentiated good is thus
\[ x_i = \int \beta(a)\, da = \beta(\gamma^2) - \beta(\gamma^2) \]
\[ \mu_i = \int \gamma(a)\, da = \gamma(a) \]
\[ \sigma_i = \int \sigma(a)\, da = \sigma(a) \]

As mentioned above a sin
\[ b = \beta + H^2 \]
\[ \gamma = \beta + H^2 \]
\[ \delta = \beta + H^2 \]

In a free trade situation, the profit function of an importing firm is
\[ \Pi_i(p) = \beta + H^2 \]
\[ \Pi_i(p) = \beta + H^2 \]

It follows immediately that
\[ \Pi_i(p) > \Pi_{i*}(p) \]

Given that the domestic and the profit of the foreign firm is equal to the domestic firm's profit in long run, zero-profit condition on the long run domestic firm operation.

\[ \text{See Economides (1982), (1984).} \]
Given that the domestic and foreign costs are identical, it follows that

(1')

\[ \lambda < 0 \]

It follows immediately that

(2')

\[ d = \left\{ \left[ \frac{x + \frac{\varepsilon}{q} - q}{H} \right] \left[ g + d \right] \right\} \lambda \]

(3')

\[ x = \left\{ \left[ \frac{x + \frac{\varepsilon}{q} - q}{H} \right] \left[ g + d \right] \right\} \lambda \]

focusing on the equilibrium price (see eq. (1')) for domestic firms

(4')

\[ x = \left\{ \left[ \frac{x}{q} + \frac{q}{q} \right] \lambda - d \right\} \]

(5')

\[ x = \left\{ \left[ \frac{x}{q} + \frac{q}{q} \right] \lambda - d \right\} \]

Hence, the domestic (or foreign) equilibrium price is given by

(6')

\[ x = \left\{ \left[ \frac{x}{q} + \frac{q}{q} \right] \lambda - d \right\} \]

(7')

\[ x = \left\{ \left[ \frac{x}{q} + \frac{q}{q} \right] \lambda - d \right\} \]

Since the domestic and foreign firms have identical costs, the equilibrium price is determined by the domestic firm

(8')

\[ x = \left\{ \left[ \frac{x}{q} + \frac{q}{q} \right] \lambda - d \right\} \]

(9')

\[ x = \left\{ \left[ \frac{x}{q} + \frac{q}{q} \right] \lambda - d \right\} \]
Due to differences in technologies among nations it has been demonstrated that the competitive market processes lead to a crowding out of high cost producers in markets for differentiated products, thus transforming the original intra-industry trade flows of goods. The observed tendency of high levels of intra-industry trade flows among industrialized nations is promoted through demand patterns. Technology effects are an important aspect not to be overlooked when attempting to explain the current world trade expansion in which the volume of exports and imports simultaneously grow.

**SUMMARY**

Given differences in technologies among nations it has been demonstrated that the competitive market processes lead to a crowding out of high cost producers in markets for differentiated products, thus transforming the original intra-industry trade flows of goods. The observed tendency of high levels of intra-industry trade flows among industrialized nations is promoted through demand patterns. Technology effects are an important aspect not to be overlooked when attempting to explain the current world trade expansion in which the volume of exports and imports simultaneously grow.

**APPLICATIONS**

Applications are invited for grants of up to $1,000 to be shared among other scholars to participate in the study of political economy. The grants will be used to cover expenses related to the study of political economy. The selection of topics, other things equal, will be the responsibility of the grant committee. Applications for grants shall be submitted by November 1st of each year. Applications should include a brief statement of the research project and the names of the principal investigators. Application for grants shall be obtained from the Secretariat, University of Stirling, Stirling, Scotland.