

Trade Productivity Upgrading, Trade
Fragmentation, and FDI in Manufacturing:
The Asian Development Experience
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Discussion
by
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Part I

Summary of the paper

Objective and methodology

- Explores various aspects of globalisation in development in a unified framework
 - Relationship of implied productivity of exports and imports with growth and FDI inflows
 - Relationship of implied productivity of imported and exported intermediates with growth and FDI inflows
 - Trend in implied productivity
- Constructs implied productivity index for exports and imports of intermediate and other goods for 10 Asian countries

- Export and import productivities are highly correlated with GDP per capita
- Upward trend in productivity of intermediate exports and imports
- For less developed Asian economies FDI inflows are strongly and positively correlated with productivity in export
- For more developed economies FDI inflows are strongly correlated with productivity of intermediate imports
- China and India: outliers as their export productivity are at higher levels compared to their Asian counterparts
 - Role of sophisticated imported intermediate goods
 - Technology transfer through FDI
 - Low tariff rates, transportation and communication cost

Part II

Comments

Does construction of the index matter?

- Hausmann et al. (2007) productivity index
 - Productivity of a products: sum of income levels of countries that export a particular product, weighted by each countries revealed comparative advantage in that product
 - Overall productivity of export bundle: sum of productivity measures for each product weighted by the share of the product in that country's total exports
- Correlation of productivity measure and income level: bias in correlations between the measure of export productivity and per capita income (Brenton et al., 2007)

Does construction of the index matter?

- Hausmann et al. measure
 - Does not adjust for quality of product from same industry
 - Overestimates the importance of sophisticated products in low income country
 - Unit value of export relative to the world captures product quality within the same product group of a country's exports (Brenton et al., 2007)
 - Example: China
 - Hausman et al. productivity measure indicates rapid upgradation of export structure
 - Lower unit values or prices relative to world for a given product signals low quality of Chinese export varieties within a given product category (Xu, 2009)
- After adjusting for quality, China's exports appears consistent with its level of development (Xu, 2009)

Is productivity enhancement in exports and imports reflected in firm productivity?

- Claim: Asian countries are relatively successful at upgrading exports and imports productivity mainly in intermediate goods
- Can we validate this claim by productivity performance of exporting and importing firms over time?
- We attempt to test the claim based on firm level data for exporters and importers for India

- Firm level data from CMIE Prowess
- Sector: manufacturing
- Type of firms
 - Exporters: ratio of exports to sales exceeds 1%
 - Importers: who are not exporters at the same time
 - Firms having value of imported raw materials exceeding 1% of total raw material expenses: to test whether advanced technology in intermediates is absorbed and reflected in firms' productivity
- Period: 1984-2000
- Method of productivity estimation: Stochastic Frontier Analysis and pooling regression technique

- The paper finds rapid surge in export productivity of intermediate goods for India
- We do not find any significant surge in productivity for both exporters and importers in India

Productivity trend for exporters

Figure IV.5 EXPY for Intermediate Exports

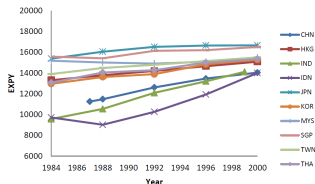
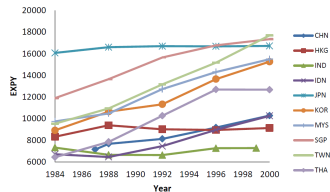
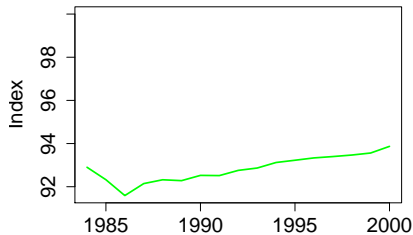


Figure IV.6. EXPY for Other Exports

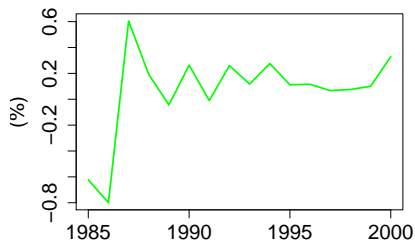


Productivity trend for exporters

Productivity level over time



Productivity growth over time



Productivity trend for importers

Figure IV.7. IMPY for Intermediate Imports

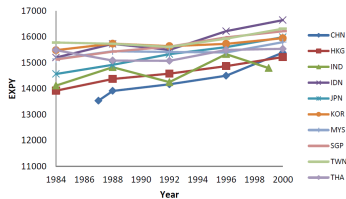
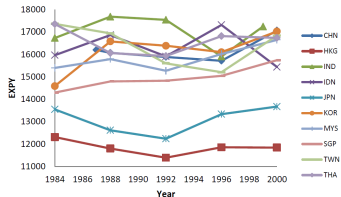
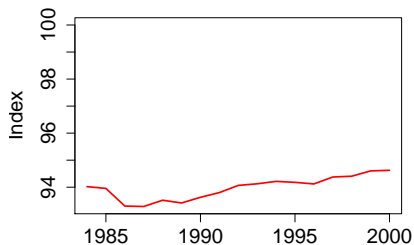


Figure IV.8. IMPY for Other Imports

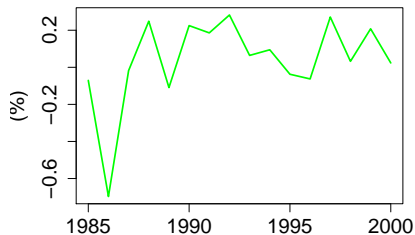


Productivity trend for importers

Productivity level over time

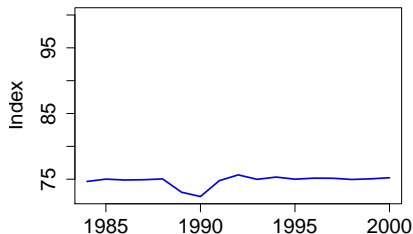


Productivity growth over time

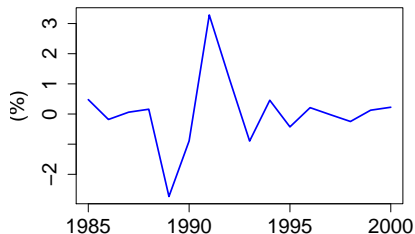


Productivity trend for intermediate importers

Productivity level over time



Productivity growth over time



Thank you