Global Value Chains
Content

Theories of International Trade

*The New Wave of Globalization and Its Economic Effects* (article)

The Rise of Asia: ISI and EOI

Introduction to Global Value Chains

Immiserizing Growth and Barriers to Entry
International Trade
Theory of Comparative Advantage

• GOLDEN RULE: ‘comparative advantage as the capability of producing at relatively lower cost than another country’

• Central concept of tradeoff: when is production allocated in the best possible way?

• Ricardo: ‘countries should focus on their specializations, so everyone is better off’
Ricardo’s Extreme Degree of Specialization

- The existence of more than one factor of production reduces tendency towards specialization
- Protectionism of national industries
- Costs of transportation leads to self-sufficiency
Critics on the Theories of Comparative Advantage

• Its predicts a too extreme degree of specialization
• It doesn’t take in account income distributions within countries, which heavily effect trade
• It doesn’t take in account the differences between resources, which are a fundamental base of trade itself
• It neglects the role of economies of scale as a cause of trade
Heckscher-Ohlin Model

GOLDEN RULE: ‘owners of a country's abundant factors gain from trade, but owners of a country's scarce factors lose’

• It clearly distinguishes CAPITAL-, LAND- and LABOR- endowment between countries
• It extends the Ricardian Model by predicting how comparative advantage will influence the division of labor and production nationally

• Small critical point: the Heckscher-Ohlin Model doesn’t zoom to the effects for domestic consumers and producers when a foreign country enters the market...
Stolper-Samuelson Theorem

• GOLDEN RULE: ‘when a country opens to trade, its abundant factor gains from trade, while its scarce factor loses from trade’

• The Stolper-Samuelson Theorem maps the shifts in consumption and production when a new player enters the market
Vietnam:
- Relatively land abundant.
- Comparative advantage in rice.
- Export rice. Import motorcycles.
- Increased output of rice. Decreased output of motorcycles.
- Increased demand for land. Decreased demand for capital.
- Land owners gain. Capitalists lose.

Japan:
- Relatively capital abundant.
- Comparative advantage in motorcycles.
- Export motorcycles. Import rice.
- Increased output of motorcycles. Decreased output of rice.
- Increased demand for capital. Decreased demand for land.
- Capitalists gain. Land owners lose.

Critics on the Stolper-Samuelson Theorem

• Factor endowments between countries are not equal
• Countries are not equally technologically advanced
• No barriers in trade
• Prefect mobility in trade of goods
First Wave: 1870-1914

- Falling transportation costs:
  - Sail- to steamships
  - Railroads
- Reduction in tariff barriers
- Production of land-intensive commodities exchanged for production in manufacturing
- Colonial empires: Europe as a center, colonies as periphery
- Migration on a never seen before scale
- Rise of legislative pillars of social protection
Retreat: 1914-1945

• ALSO FALLING TRANSPORT COSTS, but...

• Protectionism of domestic markets
  • Trade barriers
  • Capital export controls

• Reduction in migration, trade and foreign capital flows
Second Wave: 1945-1980

- Institutions stimulating international cooperation and break down protectionism
- DISAPPEARANCE of trade barriers between the ADVANCED NATIONS
- APPEARANCE of trade barriers between DEVELOPING COUNTRIES

↓

- Clustering of companies
Third Wave: 1980 - ...

- Disappearance of trade barriers by developing countries
- Developing countries start using their comparative advantages: abundance in land and labor

- Enormous reduction in transportation costs:
  - Container shipping
  - Air freight

- Enormous reduction in communication costs:
  - The internet

- So, is the best business strategy clustering or offshoring?
Example of Winners and Losers of International Trade
Singapore’s Situation in 1965

Lee Kuan Yew:

‘Singapore at the moment of independence in 1965 is a country:
• without a hinterland
• it has no natural resources
• it is located between two powerful neighbors that don’t like us’
Import-substituting Industrialization (ISI)

• Develop national economy by subsidizing vital domestic industries and the use of highly protectionist trade policies

• Based on the infant industry argument

• Based on fear for capitalism and the idea that developing countries could never catch up with the advanced nations

• NOT A USEFULL MODEL FOR SINGAPORE!!!
Export Orientated Industrialization (EOI)

• Speed up national industrialization by opening up the country to foreign trade

• Use the comparative advantage of the country: initially cheap labor, later human capital

• Singapore is a pioneer using this new model and so the dwarf state outran its ‘big brothers’ Malaysia and Indonesia
Global Value Chain Definition

• ‘A full range of activities that firms and workers do to bring a product from its conception to its end use and beyond’ (Center on Globalization, Governance & Competitiveness. *Global Value Chain Analysis: A Primer*. Durham, 2011: p.4.).

• Global Value Chains reflect the paradigm change: clustering vs. offshoring.

Global Value Chain: Nutella

Definition of Global Value Chains

• Starting in the 1980’s business literature changed its methodology by focusing on value-added.

• Value-added is an approach that maps determinants of global industrial organization

• Value-added differs per chain stage

Note on Technological Change

• The fragmentation of production is not entirely new, but the pace by which it happens has never been so fast

• Technological change has helped decreasing transport and communication costs, increasing the competitive edge of developing countries

• Technological change is NOT the cause of global value chains, but it accelerates the process
Opportunity for Development


  1. Tailor a national industrial strategy based on the regional or global status quo of international trade
  2. Countries should select specific industries for global value chain stages based on both comparative advantage and imports
  3. As ease of importing products improves competitiveness, a country should try to remove trade barriers as much as possible
  4. For the good of gain for all, international cooperation is required to reduce trade barriers together
Mutual gain sounds nice, BUT... is this the best possible option for every single country?
National Strategy

- They way value-added is divided among chain stages is unequal
- Countries in chain stages with higher value-added are better off than countries in chain stages with low value-added
- Two concepts push for this pattern
  - Immiserizing growth
  - Barriers to entry
Immiserizing Growth

• Let’s take the perspective of a domestic company of a developing country in international trade:

  Opening the to market leads to an increase in competition  
  ↓  
  In order to remain ahead, ceteris paribus, domestic firms lower their price  
  ↓  
  Likewise foreign companies will do the same  
  ↓  
  Depending on severity a ‘race to the bottom’ will occur

• So, immiserizing growth is the scenario of export-biased growth of poorer nations that would lead to a self-defeating terms of trade, because of which the final result is that they are worse off with growth instead of without.
Barriers to Entry

• Barriers to entry are a constraint that protects a firm from potential competition

• In microeconomics there are three forms of barriers to entry
  1. Natural barrier to entry: a natural monopoly
  2. Ownership: a single firm owns a significant portion of a resource
  3. Legal barrier to entry: public franchise, patent or copyright
The Model that captures it all: Smiling Curve

Factor Shares in Value Added of 560 Global Value Chains of Manufactures, 1995 and 2008

A: Capital share

B: High-skilled labor share

C: Medium-skilled labor share

D: Low-skilled labor share

Shares of High-Skilled Labor in Value Added of All Global Value Chains of Manufactures, by Country

Conclusive Note

‘...where levels of competition are high, incomes are under threat. The only way in which income growth can be sustained is through an enduring barrier to entry or – where barriers to entry are transient – by the firm, the region or the country developing the dynamic capability to systematically move to activities in which high barriers of entry prevail’


So, the Ricardian Model is until today (so for more than 200 years already!) the base for international economics. Still, technological change, leading to falling transport- and communication costs, has changed the dynamics of the market and calls for revision of the old frameworks of international trade.