African Agricultural Marketing Project

Session 2b: Gains from trade

Nicholas Minot
International Food Policy Research Institute

African Agricultural Markets Programme
Training Session for Technical Staff
Nairobi Kenya
9 – 10 December 2008
Topics 1

- What are gains from trade
- Sources of gains from trade
  - Comparative advantage
  - Competition
  - Economies of scale
  - Dynamic gains from trade
- How are gains from trade measured?
- How big are gains from trade?
- Myth: Countries gain from exports but lose from imports
- Comparative advantage
- Myth: If a country is very poor, it may not be competitive in any commodity
- Measuring gains from trade
- Role of the exchange rate
Topics 2

- If trade is so good, why do trade barriers exist?
- Who gains from trade barriers?
- Effect of import barriers
- Effect of export barriers
- Myths: If world markets are distorted, countries cannot gain from trade
- Myth: It doesn’t make sense to import and export the same good
- Politics of trade agreements
Topics 3

- Possible negative effects of trade
  - Country gains, but some will lose
  - Dumping
  - Predatory pricing
  - Costs of transition
  - Deindustrialization

- Policies to compensate for losses
  - Retraining
  - Regional investment in infrastructure
  - Safety net programs
What are gains from trade?

Gains from trade refer to the benefits to a group of people from exchanging goods and services with other groups of people.

1. Usually, we think of gains from trade from countries trading with each other, but it could be districts, villages, or even households.
2. It does not mean everyone in the group gains – it means that benefits > losses.
Myth #1: “When two countries trade, one wins and the other loses”
- Trade is not a zero-sum game
- Both countries can and generally do benefit from trade, though the benefits may not be equal
- There are winners and losers in each country
- Example: If Uganda exports maize to Kenya, both countries gain overall but:
  - Some Uganda maize producers and Kenya maize consumers gain
  - Uganda maize consumers and some Kenya maize producers lose
Why are there gains from trade?
- Comparative advantage
- Competition
- Economies of scale
- Dynamic gains from trade

Comparative advantage
- Means each country can produce some goods at relatively lower cost than other goods
- Country will export goods it can produce at relatively lower cost, import goods it costs relatively more to produce
Comparative advantage (example)
- Bolivia is a high-cost producer
- Argentina has absolute advantage in everything
- What can Bolivia export?

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Argentina</th>
<th>Bolivia</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Cost in days of labor</td>
<td></td>
</tr>
<tr>
<td>Potatoes</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Beef</td>
<td>15</td>
<td>30</td>
</tr>
<tr>
<td>Soap</td>
<td>12</td>
<td>18</td>
</tr>
<tr>
<td>Beer</td>
<td>22</td>
<td>66</td>
</tr>
<tr>
<td>Shirts</td>
<td>18</td>
<td>45</td>
</tr>
<tr>
<td>Radios</td>
<td>25</td>
<td>75</td>
</tr>
</tbody>
</table>
Comparative advantage (example)
- Need to look at relative (or comparative) cost
- Argentina will export beer and radios (where it has the biggest cost advantage)
- Bolivia will export potatoes and soap (products where it is least inefficient)

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Argentina</th>
<th>Bolivia</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potatoes</td>
<td>10</td>
<td>10</td>
<td>1.0</td>
</tr>
<tr>
<td>Beef</td>
<td>15</td>
<td>30</td>
<td>2.0</td>
</tr>
<tr>
<td>Soap</td>
<td>12</td>
<td>18</td>
<td>1.5</td>
</tr>
<tr>
<td>Beer</td>
<td>22</td>
<td>66</td>
<td>3.0</td>
</tr>
<tr>
<td>Shirts</td>
<td>18</td>
<td>45</td>
<td>2.5</td>
</tr>
<tr>
<td>Radios</td>
<td>25</td>
<td>75</td>
<td>3.0</td>
</tr>
</tbody>
</table>
Myth #2: “Some countries are so inefficient that they don’t have a comparative advantage in anything”

- Some countries may not have an absolute advantage in anything
- Every country has a comparative advantage in something
- Although it may be difficult to predict ahead of time
Competition (2\textsuperscript{nd} type of gain from trade)

- Without trade, some industries can act as monopolists and charge higher prices.
- With trade, companies have to compete and offer prices close to costs.

<table>
<thead>
<tr>
<th></th>
<th>Argentina No trade</th>
<th>Argentina Trade</th>
<th>Bolivia No trade</th>
<th>Bolivia Trade</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Price with trade and without trade</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Potatoes</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>10</td>
</tr>
<tr>
<td>Beef</td>
<td>15</td>
<td>15</td>
<td>15</td>
<td>15</td>
</tr>
<tr>
<td>Soap</td>
<td>15</td>
<td>12</td>
<td>15</td>
<td>12</td>
</tr>
<tr>
<td>Beer</td>
<td>25</td>
<td>22</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td>Shirts</td>
<td>20</td>
<td>15</td>
<td>20</td>
<td>15</td>
</tr>
<tr>
<td>Radios</td>
<td>30</td>
<td>25</td>
<td>30</td>
<td>25</td>
</tr>
</tbody>
</table>
Returns to scale (3\textsuperscript{rd} type of gain from trade)

- Without trade, Argentina and Bolivia produce less than the least cost amount of soap and radios
- With trade, each specializes and exports one good, stops producing and imports the other
Dynamic gains from trade (4th type)

- Static gains mean that trade gives one-time increase in income (GDP)
- Dynamic gains mean that trade increases rate of growth in income (GDP)

Why?

- Competition spurs innovation and investment
- Trade allow new technology and inputs
- Open trade policy increases investment, particularly foreign investment
  - Signal of good investment climate
  - Allows foreign companies to invest to cater to home customers
Myth #3: “The country should promote exports and restrict imports.”

Mercantilist philosophy (1500s): maximise exports and minimise imports

But this is flawed: the only reason to export is to be able to pay for imports (either now or later)

Exports help economy through jobs created

Imports help economy by lowering cost and increasing variety of inputs for producers and goods for consumers
How do we measure gains from trade?
- Static gains from trade vs no trade for exporter
  - Export price is higher than autarky price
  - Consumer benefit from lower price = blue + green
  - Producer loss from lower price = blue
  - Net gain = green
How do we measure gains from trade?

- Static gains from trade vs no trade for importer

- Import price is lower than autarky price

- Consumer benefit from lower price = blue + green

- Producer loss from lower price = blue

- Net gain = green
How do we measure gains from trade?

- Static gains from reducing import barriers
  - Price with tariff is higher than price without tariff
  - Consumer benefit from lower price = blue + green
  - Producer loss from lower price = blue
  - Net gain = green
How big are gains from trade?

- **Static gains from trade**
  - Most studies of trade liberalization show gains of 1–6% of GDP, depending on how restrictive trade policy was before liberalization

- **Dynamic gains from trade**
  - Harder to measure but generally much larger
  - Wacziarg and Welch (2008)
    - Econometric study of dozens of countries over 1950–1998
    - Trade liberalization increase trade/GDP ratio 5–10 pct points
    - Trade liberalization increases GDP growth rate 1.5 to 2 percentage points
    - Over 10 years, this represents a GDP that is 22% higher
How big are gains from trade?

- Information needed to calculate static benefits of eliminating an import tariff (green area)
  - Current level of imports with tariff ($Mt$)
  - Current price with tariff ($Pt$)
  - What price would be with no tariff ($Pn$)
  - What imports would be no tariff ($Mn$)

Net benefit = Area = $0.5 \times (Mt + Mn) \times (Pt - Pn)$
How big are gains from trade?

- Example: wheat import tariffs in Kenya

\[
\text{Net benefit} = \text{Area} = 0.5 \times (M_t + M_n) \times (P_t - P_n) \\
= 0.5 \times (600 + 845) \times (430 - 270) = \\
= 725 \text{ th tons} \times \text{US$160/ton} = \text{US$ 116 million}
\]
If there are gains from trade, why do government’s impose restrictions on trade?

- Political influence of producers
  - Usually larger, better informed, and better organized than consumers, who would gain from import liberalization
- Infant industry argument
  - Problem of infants who never grow up
- Concern about impact on poverty
  - If producers are poorer than consumers
- Dependence on tariff revenue
- Cost of transition
If there are gains from trade, why do government’s impose restrictions on trade?

- Main reason in most cases: political influence of producers

---

**Kenya wheat farmers block road in protest at prices**

Mon Jun 30, 2008 10:50am EDT

NAROK, Kenya, June 30 (Reuters) - Farmers in Narok, gateway to Kenya’s famed Maasai Mara Game Reserve, blocked a road and prevented the gathering of wheat harvests in the area on Monday after the government lowered import duty on the grain.

Some 2,000 farmers, who started harvesting their grain a month ago, joined the protest against falling wheat prices.

"The lowering of import duty has led to a wheat glut in the country, forcing farm prices to plummet," said Jackson Kamuye, protest leader and a councillor at Narok's county council.

Kamuye, also a local leader of the Kenya National Chamber Of Commerce and