The Impact of Food Prices on Food Security
and the Role of Latin America

Paolo Giordano

Integration and Trade Sector - INT
Vice-Presidency of Sectors and Knowledge

Washington DC, May 17th, 2012
PATTERNS OF TRADE COMPLEMENTARITY

TRADE COMPLEMENTARITY INDICES, 2009 vs. 2001
(SPHERE SIZE REPRESENTS THE SHARE OF EACH COUNTRY/REGION IN THE SUB-REGIONAL TOTAL TRADE)

Source: IDB/INT based on INTrade database and UN COMTRADE
**Asian food imports, by region**

- **1992**
  - LAC: 6%
  - Southern Cone
  - Andean
  - CA&Mex

- **2010**
  - LAC: 17%
  - Southern Cone
  - Andean
  - CA&Mex

**Asia's and LAC's shares of each other's trade**

- **1928**: Asia's share of LAC's trade = 1.6, LAC's share of Asia's trade = 1.1
- **1953**: Asia's share of LAC's trade = 2.4, LAC's share of Asia's trade = 2.3
- **1962**: Asia's share of LAC's trade = 4.2, LAC's share of Asia's trade = 4.2
- **1972**: Asia's share of LAC's trade = 7.6, LAC's share of Asia's trade = 4.1
- **1982**: Asia's share of LAC's trade = 8.1, LAC's share of Asia's trade = 3.8
- **1992**: Asia's share of LAC's trade = 8.8, LAC's share of Asia's trade = 2.7
- **2002**: Asia's share of LAC's trade = 10.4, LAC's share of Asia's trade = 2.4
- **2010**: Asia's share of LAC's trade = 20.8, LAC's share of Asia's trade = 4.4

**Source:** IDB/INT based on UN COMTRADE data except for 1928 and 1953 which are from UN(1962) preliminary estimates.
ASYMMETRIES IN NET FOOD TRADE POSITION

NET EXPORTS OF FOOD AS PERCENTAGE OF GDP, 2010

Source: IDB/INT based on UN COMTRADE and IMF for GDP data
STRUCTURE OF TRADE PROTECTION

ASIA’S TARIFFS ON LATIN AMERICAN EXPORTS (%)

LAC’S TARIFFS ON ASIA’S EXPORTS (%)

TARIFF-RATE QUOTAS IN AGRICULTURE

CHINA, 2010

<table>
<thead>
<tr>
<th>Commodity</th>
<th>Quota (1,000 mt.)</th>
<th>In-quota tariff (%)</th>
<th>Over-quota Tariff (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wheat</td>
<td>9,636</td>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>Corn</td>
<td>7,200</td>
<td>1</td>
<td>50</td>
</tr>
<tr>
<td>Rice, short/medium grain</td>
<td>2,660</td>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>Rice, long grain</td>
<td>2,660</td>
<td>1</td>
<td>65</td>
</tr>
<tr>
<td>Raw Wool</td>
<td>287</td>
<td>1</td>
<td>38</td>
</tr>
<tr>
<td>Wool tops</td>
<td>80</td>
<td>3</td>
<td>38</td>
</tr>
</tbody>
</table>

KOREA, 2008

<table>
<thead>
<tr>
<th>Products</th>
<th>Quota (tonnes)</th>
<th>In-quota tariff (%)</th>
<th>Over-quota Tariff (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dairy, eggs, honey and edible products</td>
<td>406,782</td>
<td>29</td>
<td>105</td>
</tr>
<tr>
<td>Products of animal origin</td>
<td>9,968</td>
<td>7</td>
<td>22</td>
</tr>
<tr>
<td>Edible vegetables</td>
<td>282,213</td>
<td>29</td>
<td>455</td>
</tr>
<tr>
<td>Edible fruits and nuts, peel of citrus/melons</td>
<td>70,370</td>
<td>46</td>
<td>311</td>
</tr>
<tr>
<td>Cereals</td>
<td>93,924</td>
<td>8</td>
<td>398</td>
</tr>
<tr>
<td>Oil seeds/misc. grains / med.plants / straw</td>
<td>1,299,490</td>
<td>19</td>
<td>497</td>
</tr>
<tr>
<td>Animal or vegetal fats, oils and waxes</td>
<td>668</td>
<td>40</td>
<td>630</td>
</tr>
</tbody>
</table>

LONG AND SHORT-TERM TRENDS IN FOOD PRICES

INTERNATIONAL FOOD PRICE INDEX

Base Jan 2007=100

Jan’07
Dec’08
Jun’10
Feb’11
Dec’11

+39%
-15%

Jun’08
-22%

Average 1957-1972: 103

Base 1957=100

Average 1973-2006: 229

Avg. 2007-2011: 327

Source: IDB/INT based on the IMF database
SHORT-TERM IMPACT OF THE FOOD PRICES SURGE IN LAC (2010)

Gross Domestic Product

Household Consumption

Simulation Scenario:
40% average trade-weighted food price increase (2007 benchmark)

Source: IDB/INT based on results of the IDB-INT CGE model
DOMESTIC TRANSMISSION OF INTERNATIONAL FOOD PRICES

Elasticity of Domestic Food Prices to International Prices* (First 6-month the shock)

<table>
<thead>
<tr>
<th>Country</th>
<th>Food</th>
<th>Non-food</th>
</tr>
</thead>
<tbody>
<tr>
<td>El Salvador</td>
<td>20</td>
<td>-2</td>
</tr>
<tr>
<td>Bolivia</td>
<td>25</td>
<td>+1</td>
</tr>
<tr>
<td>Ecuador</td>
<td>10</td>
<td>+4</td>
</tr>
<tr>
<td>Honduras</td>
<td>8</td>
<td>+2</td>
</tr>
<tr>
<td>Guatemala</td>
<td>9</td>
<td>+1</td>
</tr>
<tr>
<td>Uruguay</td>
<td>4</td>
<td>+3</td>
</tr>
<tr>
<td>Colombia</td>
<td>2</td>
<td>0</td>
</tr>
<tr>
<td>Dominican Rep.</td>
<td>9</td>
<td>+4</td>
</tr>
<tr>
<td>Peru</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Panama</td>
<td>2</td>
<td>+1</td>
</tr>
<tr>
<td>Brazil</td>
<td>9</td>
<td>+0.3</td>
</tr>
<tr>
<td>Bahamas</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

Annual Change in Food and Non-food Price Indexes, 2011 vs. 2010 (Difference Food-Non Food in percentage points in parentheses)

Pass-through is higher in poorer countries

LONG-TERM IMPACT OF INTERNATIONAL FOOD MARKETS ADJUSTMENT (2020)

HOUSEHOLD REAL CONSUMPTION OF FOOD PER CAPITA IN ASIA, 2008-2020
(INDEX 2008=100)

- China: ↑53%
- India: ↑24%
- Rest of Asia: ↑18%

REAL IMPORT DEMAND OF FOOD, 2008-2020
(INDEX 2008=100)

- China: ↑130%
- India: ↑29%
- Rest of Asia: ↑23%

INCREASE IN LAC AGRO-EXPORTS TO ASIA: 2008 VS. 2020
(IN MILLIONS OF 2008 US DOLLARS)

- Increase: 21%
- Change: 28,534
- 2008: 34,582
- 2020: 21%

CHANGE IN SHARE OF ASIAN AGRO-IMPORTS: 2008 VS. 2020
(IN PERCENTAGE POINTS)

- USA+CANADA: 0%
- LAC: 1%
- EU27: 2%
- Intra-Asia: 3%
- ROW: 4%

Simulation Scenario: 2020: impact of projected real import demand growth
2020+: impact of projected real import demand growth + 50% tariff reduction in agriculture

Source: OECD/FAO; IMF WEO; IDB-INT CGE model
THANK YOU!

Paolo Giordano
Integration and Trade Sector - INT
Vice-Presidency of Sectors and Knowledge

Washington DC, May 17th, 2012