Rice Trade and the Free Trade Area of Americas Agreement

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Objective

• Assess the potential impact of the Free Trade Area of the Americas (FTAA) agreement on rice trade.
  – Review aspects of U.S. rice exports
  – Western Hemisphere trade
  – Modeling framework
  – Results
U.S. rice exports by type

Thous. MT


Rough Brown Milled

Legend:
- Rough
- Brown
- Milled
Western Hemisphere Rice Imports

Volume

Global share

Thousands of Metric Tons

Percent of World Imports


0.0% 5.0% 10.0% 15.0% 20.0% 25.0%
Average Imports tariffs for rice by degree of processing in the Western Hemisphere.
Rice Import Tariffs
for selected countries

Mexico
Costa Rica
Brazil
Colombia

Milled
Brown
Rough
Regional trade agreements in the Western Hemisphere

• NAFTA
  • Canada, Mexico, and United States
  • To phase out rice tariffs by 2003

• MERCOSUR
  • Argentina, Brazil, Paraguay, and Uruguay
  • Common external rice tariffs

• CACM
  • Costa Rica, El Salvador, Guatemala, Honduras and Nicaragua
  • Attempt to reconcile common external tariffs
Regional trade agreements in the Western Hemisphere

- **CARICOM**
  - Antigua and Barbuda, Barbados, Bahamas, Belize, Dominica, Grenada, Guyana, Jamaica, Monserrat, St. Kitts and Nevis, St. Lucia, Suriname, St. Vincent, Trinidad and Tobago
  - Most apply a common external tariff
  - Guyana is the dominant export supplier to this group

- **Andean Pact**
  - Bolivia, Colombia, Ecuador, Peru, and Venezuela
  - Most maintain a common external tariff
Free trade agreement of the Americas

- Summit of the Americas
  - Miami, FL 1994

- Agreed to negotiate removal of barriers
  - Trade
  - Investment

- Attempt to complete agreement by 2005
Assess the potential impact for rice trade?

• Spatial equilibrium model
  – disaggregate by degree of processing
    • milled, brown and rough
  – disaggregate into 82 regions/countries, especially Western Hemisphere
  – express current trade barriers and removal to FTAA members
Model structure

- Quasi-welfare objective function
  - maximize exporter and importer welfare surpluses
  - subject to linear arbitrage conditions
Model parameters

- Derive excess supply and excess demand equations based on:
  - elasticities
  - base year (1999) trade and prices
  - base year trade policies (tariffs)

- Transportation cost matrix from all exporters to all importers
**Results: FTAA impact on global trade**

<table>
<thead>
<tr>
<th>Rice type</th>
<th>Base</th>
<th>FTAA</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milled (tmt)</td>
<td>20,366</td>
<td>20,560</td>
<td>194</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Brown (tmt)</td>
<td>3,574</td>
<td>3,615</td>
<td>41</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>Paddy (tmt)</td>
<td>890</td>
<td>1,034</td>
<td>144</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td></td>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>
Results: impact on global prices

<table>
<thead>
<tr>
<th>Rice type</th>
<th>Base</th>
<th>FTAA</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milled ($/mt)</td>
<td>$235.50</td>
<td>$236.91</td>
<td>$1.41</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown ($/mt)</td>
<td>348.70</td>
<td>352.44</td>
<td>3.54</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td>1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy ($/mt)</td>
<td>159.99</td>
<td>175.44</td>
<td>15.45</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td>10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Results: impacts on Western Hemisphere rice imports

<table>
<thead>
<tr>
<th>Rice type</th>
<th>Base</th>
<th>FTAA</th>
<th>Difference</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milled (tmt)</td>
<td>2,126</td>
<td>2,434</td>
<td>308</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td>14</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Brown (tmt)</td>
<td>341</td>
<td>449</td>
<td>108</td>
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<tr>
<td>Percent change (%)</td>
<td>32</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Paddy (tmt)</td>
<td>667</td>
<td>819</td>
<td>152</td>
</tr>
<tr>
<td>Percent change (%)</td>
<td>23</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Trade creation and diversion

<table>
<thead>
<tr>
<th>Rice type</th>
<th>Quantity (tmt)</th>
<th>Percent change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Milled trade creation</td>
<td>550</td>
<td>26</td>
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<tr>
<td>Milled trade diversion</td>
<td>-142</td>
<td>-7</td>
</tr>
<tr>
<td>Brown trade creation</td>
<td>155</td>
<td>45</td>
</tr>
<tr>
<td>Brown trade diversion</td>
<td>-47</td>
<td>14</td>
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<tr>
<td>Paddy trade creation</td>
<td>157</td>
<td>24</td>
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<tr>
<td>Paddy trade diversion</td>
<td>-5</td>
<td>1</td>
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</tbody>
</table>
Summary and conclusions

• Study limitations
  – no substitution between rice types
• Limited impact on global rice trade and prices
• Trade increases for all types with the largest increase in rough rice trade
• Trade creation exceeds trade diversion by 568 thousand MT, 3% of world trade.