Extra-Regional Trade Effects & The Value of Preferential Market Access

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(Based on joint work with Tom Vollrath)

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Outline

• RTAs in Global Trade

• Significant dynamics occurring in extra-regional meat markets

• Is the surge in RTAs shrinking our preference margin?
RTAs in Global Trade

• Proliferating Regionalism
  • 500 notifications of RTAs (in force, in negotiation, in consideration)
  • 239 in force (Jan. 2012)

• Since its inception, WTO has received an average of ~ 12 notifications/year
  • Almost 1/month

• All WTO members party to at least one RTA and most participate in multiple agreements (avg. = 6!)

• This is natural policy response to increasing membership (WTO), stagnating multilateral talks

• All of which leads to ...
Proliferating Regionalism!

<table>
<thead>
<tr>
<th>Year</th>
<th>CU</th>
<th>FTA</th>
<th>PSA</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>1995</td>
<td>12</td>
<td>29</td>
<td>9</td>
<td>50 (Bilateral = 15)</td>
</tr>
<tr>
<td>2010</td>
<td>21</td>
<td>170</td>
<td>15</td>
<td>206 (Bilateral = 105)</td>
</tr>
</tbody>
</table>
Western Hemisphere
Let’s be thankful we’re not in charge of the Rules of Origin!
The Issues

• Regional integration once again “breeding concern” about intra vs. extra-regional trade effects

• US (& Canada) finds itself increasingly on the outside
  • Particularly w.r.t large & economically significant RTAs being formed & expanded in Asia (ASEAN + 6)
  • And the aggressive pursuit of regionalism by our competitors in South America (i.e., Brazil)

• “Is there a barrier being drawn down the center of the pacific?” (Bergsten, 2009)
Objectives

1. Evaluate market share and trade intensity indices to evaluate U.S. and competitor animal product export trends to RTA markets to which the U.S. does not participate.

2. Estimate the value and extent of preferential market access in RTA markets, vis-à-vis tariffs, granted to key competitor nations relative to the U.S.
Data Information & Sources

• Reconciled UN Comtrade Data, 1980-2010
  – 75 Countries (> 90 percent of global meat trade)
  – SITC Rev. 2 (00, 02, 04)
    • Live animals, processed meat, and dairy sectors
  – 5 year averages to smooth year specific shocks (i.e., BSE)

• Mirrored Flows (Feenstra et al. 2005)
  – Use import statistics whenever available
  – Export statistics used if imports missing (adj. for FOB/CIF differentials)

• World Integrated Trade Solutions (WITS 2004)
  – Bilateral tariffs including preferential margins
  – Ad valorem equivalent of specific tariffs
# Acronyms

<table>
<thead>
<tr>
<th>Agreement</th>
<th>Date of Entry into Force</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU</td>
<td>‘73, ‘81, ‘86, ‘95, ‘04, ‘07</td>
<td>European Communities EU9, 10, 12, 15, 25, 27</td>
</tr>
<tr>
<td>AUS_NZL</td>
<td>1983</td>
<td>Australia-New Zealand FTA (incl. recent FTAs with Japan and China)</td>
</tr>
<tr>
<td>ASEAN</td>
<td>1992</td>
<td>Association of Southeast Asian Nations (IDN MYS PHL SGP THA VNM)</td>
</tr>
<tr>
<td>SAFTA</td>
<td>1996</td>
<td>South Asian Free Trade Agreement (BGD CHN IND KOR LKA PAK)</td>
</tr>
<tr>
<td>ANDEAN</td>
<td>1988</td>
<td>Andes Community (BOL, COL, ECU, PER)</td>
</tr>
<tr>
<td>MERCOSUR</td>
<td>1991</td>
<td>Southern Common Market (ARG, BRA, PRY, URY)</td>
</tr>
<tr>
<td>BRICs</td>
<td>2003*</td>
<td>Brazil, Russia, India, China (Goldman Sachs)</td>
</tr>
<tr>
<td>N-11</td>
<td>2007*</td>
<td>Goldman Sachs’ Next 11 Emerging Markets BGD EGY IDN IRN MEX NGA PAK PHL TUR KOR VNM</td>
</tr>
</tbody>
</table>
Intra-Regional Market Shares: Meat and Dairy
### Intra-Regional Trade Shares, Global Animal Products

<table>
<thead>
<tr>
<th>RTA</th>
<th>1980</th>
<th>2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>NAFTA</td>
<td>$1.3 Bil.</td>
<td>$10.3 Bil.</td>
</tr>
<tr>
<td>EU</td>
<td>$16.5 Bil.</td>
<td>$81 Bil.</td>
</tr>
<tr>
<td>ASEAN</td>
<td>$75 Mil.</td>
<td>$8.8 Mil.</td>
</tr>
<tr>
<td>MERCOSUR</td>
<td>$96 Mil.</td>
<td>$5.2 Mil.</td>
</tr>
<tr>
<td>AUS/NZL</td>
<td>$1.1 Mil.</td>
<td>$1.8 Bil.</td>
</tr>
</tbody>
</table>

The graph shows the percentage of intra-regional trade shares for various RTAs (Regional Trade Agreements) in the global animal products market from 1980 to 2010. The percentages and corresponding trade values highlight the significant growth in trade shares for NAFTA, EU, ASEAN, MERCOSUR, and AUS/NZL over the decades.
Regional Concentration Index

- Adjusts intra-regional trade shares by the agreement's share in world trade

\[ RCI = \frac{\theta_{BB}}{\theta_{BW}} \]

- Bigger numbers = more intense RTA trade

Implication:
- Intra-RTA trade indices falling
- EU intra-bloc trade is less significant when adjusted for their share in world trade
Dynamics in Extra-Regional Meat & Dairy Markets

1. Sum RTA trade with members & nonmembers, by year & RTA Bloc (total RTA trade)
2. Eliminate intra-regional trade in each year
3. Compute U.S. and competing suppliers’ export shares to extra-regional RTA markets (year-by-year)
Country-Specific Extra-Regional Trade Shares of the EU

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$1.6 Bil.</td>
<td>$3.5 Bil.</td>
<td>$3.3 Bil.</td>
<td>$4.4 Bil.</td>
<td>$5.2 Bil.</td>
<td>$5.4 Bil.</td>
<td>$6.2 Bil.</td>
<td>$9.1 Bil.</td>
</tr>
</tbody>
</table>

** Excludes intra-EU trade
Country-Specific Extra-Regional Trade Shares of ANDEAN

<table>
<thead>
<tr>
<th>Year</th>
<th>Brazil</th>
<th>Argentina</th>
<th>New Zealand</th>
<th>Paraguay</th>
<th>U.S.</th>
<th>Denmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1980</td>
<td>$328 Mil.</td>
<td>$130 Mil.</td>
<td>$245 Mil.</td>
<td>$100 Mil.</td>
<td>$50 Mil.</td>
<td>$20 Mil.</td>
</tr>
<tr>
<td>1985</td>
<td>$425 Mil.</td>
<td>$160 Mil.</td>
<td>$352 Mil.</td>
<td>$150 Mil.</td>
<td>$75 Mil.</td>
<td>$30 Mil.</td>
</tr>
<tr>
<td>1990</td>
<td>$725 Mil.</td>
<td>$200 Mil.</td>
<td>$425 Mil.</td>
<td>$200 Mil.</td>
<td>$100 Mil.</td>
<td>$40 Mil.</td>
</tr>
<tr>
<td>1995</td>
<td>$1.1 Bil.</td>
<td>$450 Mil.</td>
<td>$506 Mil.</td>
<td>$300 Mil.</td>
<td>$175 Mil.</td>
<td>$50 Mil.</td>
</tr>
<tr>
<td>2000</td>
<td>$2.4 Bil.</td>
<td>$600 Mil.</td>
<td>$625 Mil.</td>
<td>$400 Mil.</td>
<td>$300 Mil.</td>
<td>$60 Mil.</td>
</tr>
</tbody>
</table>

** Excludes intra-ANDEAN trade
Country-Specific Extra-Regional Trade Shares of ASEAN/SAFTA

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>Shares of $7.8 Mil.</td>
<td>$1.0 Bil.</td>
<td>$1.3 Bil.</td>
<td>$1.7 Bil.</td>
<td>$3.2 Bil.</td>
<td>$5.2 Bil.</td>
<td>$7.0 Bil.</td>
<td>$13.1 Bil.</td>
<td></td>
</tr>
</tbody>
</table>

* Asia RTA countries include: IDN MYS PHL SGP THA VNM BGD CHN IND KOR LKA PAK

** Excludes intra-ASEAN/SAFTA trade

Australia

Drought?

U.S.

New Zealand

Brazil

Canada

Germany
Country-Specific Extra-Regional Trade Shares of Next 11

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<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$6.7 Mil.</td>
<td>$1.2 Bil.</td>
<td>$1.8 Bil.</td>
<td>$2.3 Bil.</td>
<td>$3.9 Bil.</td>
<td>$5.1 Bil.</td>
<td>$7.6 Bil.</td>
<td>$12.9 Bil.</td>
</tr>
</tbody>
</table>

* Next 11 countries include: BGD EGY IDN IRN MEX NGA PAK PHL TUR KOR VNM
**Includes intra-Next-11 trade

Mexico is a big factor for strong U.S. export share ~ 15 pct. pts.
Summary

• **ON A BRIGHT NOTE:**
  – Significant presence in Asia and N-11 destinations (despite not being party to their growing list of RTAs)
    • N-11 viewed as the future growth prospects for agri-food trade (Meilke & Cairns 2011)
    • Asia: mrkt shares rising from lows of 8% in ‘80s to near 20% in 2010
    • N11: mrkt share rising from 15% in ‘80s to almost 40% in 2010 (25% if exclude MEX)
    • Brazil’s presence in Asia and N11 is insignificant but rising (recently)

• **CHALLENGES**
  – Intra-EU market is ~ $80 billion but difficult to penetrate
  – Brazil is clear leader in South America and Europe with extra-regional markets of $2.4 and $9 billion, respectively
Is our Preference Margin Shrinking in Extra-Regional RTA Markets?
Relative Preferential Tariff Margins

• Salient feature of the growth of regionalism is that a large share of world trade is not subject to a country’s Most Favored Nation (MFN) tariff
  – MFN vs. preferential tariff rates less relevant
  – Preferential margins may be eroding because other countries have some form of preferences in place
  – True extent of preferences should be judged relative to our competing suppliers (Hoeckman and Nicita 2008)

• The relative preference margin evaluates the tariff vector of country $i$ with respect to the tariff vector of its competitors:

$$\tau_{ji} = \sum_{k} \theta(\varepsilon_{jk})t_{ijk} - \sum_{hs} \phi(\varepsilon_{jk})t_{wjhs}$$

- Preference Margin of $i$ (i.e., the U.S.)
- PM of competing supplier (w) (i.e., Brazil)
### U.S. Relative Preference Margins

< 0 indicates relative preference disadvantage  
> 0 indicates relative preference advantage

<table>
<thead>
<tr>
<th>Extra-Regional Import Market</th>
<th>Brazil</th>
<th>Canada</th>
<th>New Zealand</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU-25</td>
<td>-0.05</td>
<td>0.02</td>
<td>-0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>ASEAN</td>
<td>-0.05</td>
<td>0.02</td>
<td>-0.03</td>
<td>0.00</td>
</tr>
<tr>
<td>SAFTA</td>
<td>-0.05</td>
<td>-0.01</td>
<td>0.04</td>
<td>0.01</td>
</tr>
<tr>
<td>MERCOSUR</td>
<td>-0.12</td>
<td>-0.01</td>
<td>0.03</td>
<td>-0.06</td>
</tr>
<tr>
<td>BRICS</td>
<td>-0.04</td>
<td>-0.02</td>
<td>0.01</td>
<td>0.00</td>
</tr>
<tr>
<td>N-11</td>
<td>0.09</td>
<td>0.00</td>
<td>-0.02</td>
<td>-0.03</td>
</tr>
</tbody>
</table>
Conclusions

- Regional trade agreements (RTAs) are not new, but their significance is on the rise and the U.S. (& Canada) find themselves party to few agreements outside western hemisphere.
Conclusions

- FTAs can be significant policy option to gain greater access to foreign markets

- However, they are an exception to multilateral free trade because they are discriminatory

- Hard to say whether tariffs are driving dynamics in extra-regional import markets (more analysis in the works)

- Host of factors that can shut down markets, even inside RTAs
  - Preferences (hormone treated beef, mandatory labeling)
  - Food safety (BSE, chlorine rinse issues)