PUZZLES IN CANADA-US EGG TRADE

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TORONTO, ONT.
FEB. 11th, 2006
OUTLINE

• Overview

• Puzzles

• Economics of supply management in eggs

• Trade Issues

• Putting the pieces together
OVERVIEW

- Relatively small industry
  - Canadian farm cash receipts from eggs are on the order of $550 million. (Farm receipts in dairy are approximately $4.9 billion)
  
  - Canadian production of 500 million dozen eggs ranks 19th in the world and well behind China, EU, U.S., Mexico, Brazil and Indonesia
  
  - In 2005 (Jan-Nov), Canada exported $28,552,187 worth of eggs and egg products but imported $31,870,353 worth of eggs and egg products. The effects of BC’s 2004 avian flu crisis were still lingering.
  
  - Trade values are low, but note that eggs and egg products are used as important ingredients in pasta, confectionary, bakery mixes, as well as in shampoos, mouthwash and in the pharmaceutical industry
Canadian consumption of eggs and egg products was falling until 1995 but has since stabilized.
PUZZLE 1

• Imports of eggs and egg products are significantly over TRQ access levels under WTO rules and well above CUSTA access levels (except for dried egg imports?).

CANADA - WTO import access levels versus actual imports
(Shelled and Processed)
CANADA-Shell egg access levels versus actual shell egg imports

- Shell egg imports
- CUSTA access level (shell eggs)
- WTO access levels (all eggs)
CANADA - Liquid egg access levels vs. actual imports

Year

Liquid egg imports
CUSTA access (liquid eggs)
WTO TRQ access (all eggs)

000 dozen
0 5000 10000 15000 20000 25000
Canada - Dried egg access levels vs. actual imports of dried egg products

Dried egg imports
CUSTA dried egg access
WTO access (all eggs)
PUZZLE 2:

- Canada’s trade balance in dried egg products has been positive and increasing over the past decade while its trade balance in liquid and frozen egg products has been negative but stable.
PUZZLE 3:

CUSTA access rules and WTO access rules are based upon dozens of shell eggs and shell egg equivalents.

CUSTA: 2.988% of previous year production
1.647% shelled eggs
0.714% liquid & frozen eggs
0.627% dried (powdered) eggs

WTO: 21,370,000 dozen eggs
(GATT agreements previously set access at .675% on shelled eggs and 1.03% on processed eggs)

Requires Canada to convert liquid, frozen and dried egg products into shell egg equivalents.

What impact does the conversion methodology from kilogrammes to shell egg equivalent have upon trade?
PUZZLES

• Imports of eggs and egg products are significantly over TRQ access levels for both table eggs and breaker eggs as well as egg products (with the exception of dried egg products)

• Canada’s trade balance in dried egg products has been positive and increasing over the past decade while its trade balance in liquid and frozen egg products has been negative but stable.

• What impact does the conversion methodology from kilogrammes to shell egg equivalent have upon trade?
Dozens of shell and shell equivalent
• Simplified model does not
  • include dutiable imports outside of supplementary import licenses and TRQ allocations.
  • Breakdown the imports of fresh eggs between shelled table eggs and boiled or pickled eggs due to a lack of disaggregation in the data.
  • Does not include imports from countries other than the U.S.; however, these imports for other countries are insignificant.

• This model was for exposition purposes only. A more formal model would break down processed demand into its constituent components.
## CANADA - IMPORTS OF EGGS AND EGG PRODUCTS UNDER TRQ AND SUPPLEMENTARY IMPORT PERMITS, 2005

<table>
<thead>
<tr>
<th>Units</th>
<th>Category</th>
<th>Type</th>
<th>Global Imports</th>
<th>Domestic Shortage</th>
<th>For Re-Export</th>
<th>Total Units</th>
<th>Equivalent Access (Dozens)</th>
<th>TRQ Access</th>
<th>Actual Access</th>
</tr>
</thead>
<tbody>
<tr>
<td>KGM</td>
<td>Dried</td>
<td>Yolk</td>
<td>24947</td>
<td></td>
<td>998</td>
<td>25945</td>
<td>171821</td>
<td>0.03%</td>
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<tr>
<td>KGM</td>
<td>Dried</td>
<td>Whole</td>
<td>183731</td>
<td></td>
<td>78380</td>
<td>262111</td>
<td>1735834</td>
<td>0.34%</td>
<td></td>
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<tr>
<td>KGM</td>
<td>Dried</td>
<td>White</td>
<td>520808</td>
<td></td>
<td></td>
<td>520808</td>
<td>3449060</td>
<td>0.67%</td>
<td></td>
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<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>729486</td>
<td>0.627%</td>
<td>1.04%</td>
</tr>
<tr>
<td>KGM</td>
<td>Liquid/Frozen</td>
<td>Yolk</td>
<td>664111</td>
<td>202406</td>
<td>445172</td>
<td>1311689</td>
<td>2281198</td>
<td>0.44%</td>
<td></td>
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<tr>
<td>KGM</td>
<td>Liquid/Frozen</td>
<td>Whole Egg</td>
<td>313802</td>
<td>44716</td>
<td></td>
<td>358518</td>
<td>623510</td>
<td>0.12%</td>
<td></td>
</tr>
<tr>
<td>KGM</td>
<td>Liquid/Frozen</td>
<td>White</td>
<td>1967226</td>
<td>242185</td>
<td>10875370</td>
<td>10875370</td>
<td>18913687</td>
<td>3.68%</td>
<td></td>
</tr>
<tr>
<td>KGM</td>
<td>Liquid/Frozen</td>
<td>Preparation</td>
<td>2945139</td>
<td>489307</td>
<td>11377847</td>
<td>14812293</td>
<td>25760510</td>
<td>0.714%</td>
<td>5.02%</td>
</tr>
<tr>
<td>DOZ</td>
<td>SHELLED</td>
<td>Nest Run</td>
<td>3346051</td>
<td>3672409</td>
<td>90000</td>
<td>7108460</td>
<td>7108460</td>
<td>1.38%</td>
<td></td>
</tr>
<tr>
<td>DOZ</td>
<td>FRESH</td>
<td></td>
<td>8574402</td>
<td>362265</td>
<td>8936667</td>
<td>8936667</td>
<td>16045127</td>
<td>1.647%</td>
<td>3.12%</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>11920453</td>
<td>1.54%</td>
<td>2.988%</td>
</tr>
</tbody>
</table>

**TOTALS** |               |                       | 47162352        | 2.988%           | 9.95%        |               |

**WTO ACCESS COMMITMENT: 21,370,000 DOZEN SHELL EQUIVALENTS**

**IN 2005, CANADA’S IMPORTS OF EGGS AND EGG PRODUCTS UNDER THE TRQ AND SUPPLEMENTARY IMPORT PROGRAMME WERE 221% OF WTO COMMITMENTS**
SHELL EGG EQUIVALENCY

• Problems related to conversion factors
• Industry Canada conversion factors
  • 151 gr. dried (powder) eggs = 1 doz shell equiv.
  • 575 gr. liquid/frozen eggs = 1 doz shell equiv.
• Technical conversion
  • An egg is composed of 53% albumen, 35% yolk and 12% shell by weight.
  • 1 doz medium eggs (@49 grams/egg)=588 grams
    » 206 grams of liquid yolk, 312 grams liquid albumen, and 70 grams of shell per dozen (of medium eggs).
    » Dried egg products require an additional conversion which yields 92 grams of dried yolk, 37.5 grams of dried albumen, and 70 grams of shell per dozen (of medium eggs)
SHELL EGG EQUIVALENCY

- Current conversion methodology
  - underestimates the amount of (shell equivalent) egg products imported into Canada for TRQ and CUSTA access
    » In liquid egg products, the weight of the shell is problematic
    » In dried egg products, the weight of the extracted water in the albumen component and shell weight are problematic

<table>
<thead>
<tr>
<th>1 KG IMPORT</th>
<th>TRQ LICENCE UTILIZED</th>
<th>PRODUCTION CAPABILITY</th>
<th>GAIN (LOSS)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LIQUID:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Albumen</td>
<td>1.74 doz.</td>
<td>3.20 doz.</td>
<td>1.46 doz.</td>
</tr>
<tr>
<td>Yolk</td>
<td>1.74 doz.</td>
<td>4.85 doz.</td>
<td>3.11 doz.</td>
</tr>
<tr>
<td>Whole</td>
<td>1.74 doz.</td>
<td>1.93 doz.</td>
<td>0.19 doz.</td>
</tr>
<tr>
<td>DRIED:</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Yolk</td>
<td>6.62 doz.</td>
<td>10.87 doz.</td>
<td>4.25 doz.</td>
</tr>
<tr>
<td>Whole</td>
<td>6.62 doz.</td>
<td>7.72 doz.</td>
<td>1.10 doz.</td>
</tr>
</tbody>
</table>
“WATER” IN THE TARIFF

• Canadian prices for surplus (breaker) eggs are set by CEMA on the basis of the landed import price.

• Applicable tariffs on imported shell eggs are set at 163.5% but not less than 79.9 cents per dozen.

• Imports of shell eggs are predominantly landed in BC and Ontario
What level of tariff is necessary to displace imports at the wholesale level?

<table>
<thead>
<tr>
<th></th>
<th>LARGE</th>
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<th>MEDIUM</th>
<th></th>
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</thead>
<tbody>
<tr>
<td></td>
<td>AVG. ('85-'04)</td>
<td>HI ('85-'04)</td>
<td>LOW ('85-'04)</td>
<td>AVG. ('85-'04)</td>
</tr>
<tr>
<td>BC</td>
<td>41%</td>
<td>55%</td>
<td>20%</td>
<td>46%</td>
</tr>
<tr>
<td>ONT</td>
<td>36%</td>
<td>63%</td>
<td>5%</td>
<td>39%</td>
</tr>
</tbody>
</table>
• How much water is there in the tariff?

• Rough estimates:

<table>
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<tr>
<th></th>
<th>LARGE</th>
<th>MEDIUM</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>AVG. ('85-04)</td>
<td>AVG. ('00-'04)</td>
</tr>
<tr>
<td>BC</td>
<td>123%</td>
<td>114%</td>
</tr>
<tr>
<td>ONT</td>
<td>131%</td>
<td>126%</td>
</tr>
</tbody>
</table>

**Our estimates are based upon annual averages and, therefore, do not preclude the possibility that the tariff of 163.5% may have been binding during some periods in each year. Seasonal tariffs?**
PUTTING TOGETHER THE PIECES

• Canadian producers are responding to a growing market for “processing” eggs

  • Problem 1:
    » How to maintain supply managed profit margins on table eggs?

  • Problem 2:
    » How to finance a growing deficit from increased surplus removal and how to supply the processed sector with more eggs to displace imports?

  • Problem 3:
    » Potential for trade disputes

  • Problem 4:
    » Unable to “effectively” manage the processed sector
• Canadian tariffs on shell eggs have plenty of “water”
  » Rough estimate is 115% water in the shell egg tariff

• Analyzing trade data without the knowledge of how supplementary import permits are issued may lead researchers and analysts to surmise that the tariff rate for shell eggs is not binding

• Conversion methodology for shell egg equivalency biases dried egg imports under CUSTA agreements toward dried egg albumen.

• Rules pertaining to supplementary import permits for dried eggs differ from liquid, frozen and shell eggs and may implicitly protect the Canadian dried egg sector.

• Only one major producer of dried eggs in Canada with plants in Manitoba and Ontario and a parent company in the U.S.