China Squeeze: What Happens When Your Largest Customer Says “No!”

Presentation to
NAAFE 2015

Jonathan King
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In the beginning.....
And then......
Chowder one minute, high-end nightclub the next....
And then one day the party is over...

China bans luxury advertising in Beijing

Beijing has moved to ban billboards promoting a luxurious lifestyle over concerns that the endless advertisements are reminding people of the wealth gap.
And they pull the punchbowl...

China bans American shellfish over high levels of arsenic

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So Why This Presentation?

- Data on the geoduck market is notoriously poor.
  - No in-country market data.
  - Data sources are limited to NMFS FTI data (monthly) and Washington Fish & Wildlife Aquatic Farm reports (quarterly).

- Setting out I wanted to answer 2 primary questions:
  - Do we see the effect of the five-month trade ban in either dataset?
  - Do we see differential effects on farmed product and wild-harvest product?
NMFS Foreign Trade Information Data

Monthly Data Collected by the Department of Commerce
- Foreign country, total value ($), volume (Kg), exporting district.
- Exports, imports, and re-exports
- Reported value frequently less than farm gate price.

FTI data has been documenting a transition away from exporting via Canada to direct exports to China and exporting via Hong Kong.

<table>
<thead>
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<th>Year</th>
<th>Canada</th>
<th>China</th>
<th>Hong Kong</th>
<th>All Others</th>
<th>Percent CCHK</th>
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<tbody>
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<td>2010</td>
<td>3.3</td>
<td>1.8</td>
<td>1.7</td>
<td>0.0</td>
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<tr>
<td>2011</td>
<td>2.3</td>
<td>2.9</td>
<td>2.4</td>
<td>0.0</td>
<td>99.7</td>
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<td>2012</td>
<td>1.2</td>
<td>3.7</td>
<td>3.8</td>
<td>0.0</td>
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<td>2013</td>
<td>1.1</td>
<td>4.1</td>
<td>4.3</td>
<td>0.7</td>
<td>93.2</td>
</tr>
</tbody>
</table>
Monthly US Exports of Geoduck

- Export Volume (000s of lbs)
- Volume Seasonality
- Increasing Volume Trend
- 5-Month Trade Ban
What About Reported Value?

Average Monthly Value ($ per Pound)

Price Seasonality

Price Dip?

Price Recovery?
What Does Time-Series Analysis Tell Us?

- ARIMA results show statistically significant and correct signs for export volume, the ban, and the exchange rate.
- Estimated drop in value per pound because of the ban is $0.88 per pound.
- A one-percent increase in export volume at the mean knocks a penny or so off the price.

Table 2. Time-Series Model Results

| Variable                  | Coefficient | Z    | P>|Z|
|---------------------------|-------------|------|------|
| Month Count               | -0.01173    | -1.04| 0.298|
| Spring (1/0)              | 0.05251     | 0.34 | 0.737|
| Summer (1/0)              | 0.01646     | 0.10 | 0.923|
| Fall (1/0)                | -0.06755    | -0.46| 0.645|
| LN US Export Volume       | -0.40132    | -3.36| 0.001|
| LN US Re-Export Volume    | 0.01309     | 0.97 | 0.331|
| Ban in Place (1/0)        | -0.87982    | -1.91| 0.057|
| Post Ban Period (1/0)     | -0.31794    | -1.03| 0.302|
| Yuan per Dollar           | -1.27199    | -1.88| 0.060|
| Constant                  | 21.03495    | 4.29 | 0.000|

Notes: ARIMA modelling in Stata. DF tests rejected null hypothesis.
Real Story is in Trade Flows: Hello Vietnam!
Importers/Exporters traded this....
For this...
On to Quarterly DFW Data

- **Aquatic Farms Reports**
  - Filed quarterly
  - Volume
  - Value
  - Farmed, Non-treaty wild, Treaty wild

- Really significant differences between Farmed, NT wild and T wild.
Grade Matters.......
Large Differences in Reported Prices

- Farms report farm gate
- Tribes report ex-vessel
- NT wild report auction values

Q1 2006 to Q1 2014:
- Farmed
- Treaty, Wild
- Non-Treaty, Wild
A Closer Look at the Ban Period

The chart shows the price trends for different categories of salmon from Q1 2012 to Q4 2014. The categories are Farmed, Treat, Wild, and Non-Treaty, Wild.

- Farmed prices started at $20.00 and dropped to $8.00 by Q4 2012.
- Treat, Wild prices started at $12.00 and dropped to $10.00 by Q4 2014.
- Non-Treaty, Wild prices started at $10.00 and remained relatively stable until Q4 2013, when they dropped sharply to $2.00.

A shaded area indicates the ban period from Q4 2013 to Q1 2014, during which prices for all categories dropped significantly.
Was Farmed Geoduck in a Commodity Bubble?

Popped by “reforms”?
Similar Pattern in Treaty Geoduck Prices
Conclusions

- Within the monthly NMFS data you can find a statistically significant value effect of the December 2013-May 2014 import ban.

- However, the far larger stories are:
  - The collapse of the bubble seen in the DFW data and the effects of the “war on luxury”;
  - The long-term effects on trade routing.
  - The significant reduction in price premium for farmed product.