China and the Global Food Market: Volumes, Specs, and Brands

IFAMA Symposium - Shanghai
Meat Consumption Curves

Meat Consumption and GDP per Capita

![Graph showing the relationship between meat consumption per capita and GDP per capita for various countries.]

Pork Consumption in the Urban and Rural Sectors

![Graph showing the relationship between pork consumption in urban and rural sectors and GDP per capita.]

R² = 0.9554

R² = 0.9818

R² = 0.9057

R² = 0.8129

Meat Consumption per Capita

GDP per Capita (US$)

China
Taiwan
Korea
Japan
Vietnam

Kg/capita

RMB per capita

Pork Urban
Pork Rural
Rural Investment and changing living standards

Village in eastern Heilongjiang

New property developments in same village
But responding to demand growth poses problems: Average Cultivated Land per Rural Household (hectares).
Planting and Production

Rice Planting in Heilongjiang

Aerial planting of rice in California
And capital flows into the Agricultural Sector run against productivity bottle-necks.
Other platform bottlenecks and constraints...

**Logistics Cost as a % of GDP (2010)**

- EU: 5.00%
- US: 10.00%
- Japan: 15.00%
- India: 20.00%
- China: 25.00%
- Vietnam: 30.00%

**Rural Cash Income per Capita (RMB/year) and YoY Growth Rate**

- EU: -20%
- US: -15%
- Japan: -10%
- India: -5%
- China: 0%
- Vietnam: 5%

CBRE Report

Bloomberg
China – Net Trade (‘000 USD) : 1992-2011

Oils and Fats

Oilseeds and Meals

Frozen Meat and Products

Dairy Products
China – Net Trade (‘000 USD) : 1992- 2011

Cereals

Milled Cereals

Fruits and Nuts

Vegetables and Tubers
World Grain Trade — Weighted by Volume of Trade Flow

**World Grain Exports - 2011**

**World Grain Imports - 2011**
But that’s just the volume story... Standardization brings a new element to the balance sheet...

**Pork farms – Composition of Sector**

<table>
<thead>
<tr>
<th>Year</th>
<th>Backyard farm (1~49 heads/farm)</th>
<th>Specialized farm (50~3000 heads/farm)</th>
<th>Commercial farm (+3000 heads/farm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>74%</td>
<td>12%</td>
<td>5%</td>
</tr>
<tr>
<td>2005</td>
<td>57%</td>
<td>37%</td>
<td>4%</td>
</tr>
<tr>
<td>2010</td>
<td>36%</td>
<td>51%</td>
<td>34%</td>
</tr>
<tr>
<td>2015F</td>
<td>21%</td>
<td>57%</td>
<td>15%</td>
</tr>
</tbody>
</table>

**Slaughterhouse Capacity**

- Manual slaughtering (20% in 2010, 5% in 2020 (F))
- Half mechanised (45% in 2010, 25% in 2020 (F))
- Mechanised (35% in 2010, 20% in 2020 (F))
The “Spec” trade story....


And the evolving Retail channel gives rise to the “Brand” story...if the retail market would just make itself a little more clear....
Category management of fresh produce and meats

Supermarket premium to Wetmarket

<table>
<thead>
<tr>
<th>Date</th>
<th>Cabbage</th>
<th>Spinach</th>
<th>Tomato</th>
<th>Green pepper</th>
<th>Potato</th>
</tr>
</thead>
<tbody>
<tr>
<td>2012/1/2</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>2012/2/2</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>2012/3/2</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>2012/4/2</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>2012/5/2</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
<tr>
<td>2012/6/2</td>
<td>-1.00</td>
<td>-0.50</td>
<td>0.00</td>
<td>0.00</td>
<td>0.50</td>
</tr>
</tbody>
</table>

Pork (lean meat) | Pork (rib row) | Egg

- 2012/1/2
- 2012/2/2
- 2012/3/2
- 2012/4/2
- 2012/5/2
- 2012/6/2
Modern Retail Channels: Market Presence is the key

Retail Purchase Decisions by kilograms purchased and Expenditure Elasticity on Retail Purchase Decisions

<table>
<thead>
<tr>
<th>Place of Purchase</th>
<th>Poorest Quartile</th>
<th>Richest Quartile</th>
</tr>
</thead>
<tbody>
<tr>
<td>Traditional Retailing</td>
<td>85.0</td>
<td>165.6</td>
</tr>
<tr>
<td>Modern Retail Outlets</td>
<td>0.4</td>
<td>22.1</td>
</tr>
<tr>
<td>Other Sources</td>
<td>3.6</td>
<td>4.2</td>
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<table>
<thead>
<tr>
<th>Safety Assurance</th>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>No concerns</td>
<td>39.7</td>
<td>21.9</td>
</tr>
<tr>
<td>Inspection at purchase</td>
<td>57.1</td>
<td>108.4</td>
</tr>
<tr>
<td>Trust to seller</td>
<td>16.3</td>
<td>52.8</td>
</tr>
<tr>
<td>Formal safety assurance</td>
<td>1.7</td>
<td>13.3</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Region of Production</th>
<th>Wetmarket</th>
<th>Modern Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Domestic production</td>
<td>109.2</td>
<td>178.4</td>
</tr>
<tr>
<td>Imports</td>
<td>3.0</td>
<td>7.1</td>
</tr>
<tr>
<td>Not Specified</td>
<td>2.6</td>
<td>6.4</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Expenditure Elasticity</th>
<th>Modern Retail</th>
</tr>
</thead>
<tbody>
<tr>
<td>Expenditure Elasticity</td>
<td>0.52</td>
</tr>
<tr>
<td>Distance Elasticity</td>
<td>0.02</td>
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</table>

The Edible Oil Aisle at Carrefour in Shanghai
Food & Agribusiness Research – North East Asia Market Coverage

Where to reach us:

**Shanghai**

**Daron Hoffman**
Director of F&A Research
 t. +86 21 2893 4633
e. daron.hoffman@rabobank.com

**Martin Wu**
Dairy and Beverage Analyst
 t. +86 21 2893 4691
e. martin.wu@rabobank.com

**Jane Peng**
Grains Analyst
 t. +86 21 2893 4670
e. jane.peng@rabobank.com

**Beijing**

**Pan Chenjun**
Senior Analyst – Animal Protein
 t. +86 10 5981 7878
e. pan.chenjun@rabobank.com

**Singapore**

**Adam Tomlinson**
Senior Analyst – Sugar / Farm Inputs
 t. +65 6230 6742
e. adam.tomlinson@rabobank.com

**Hong Kong**

**Jean-Yves Chow**
Senior Analyst – Animal Protein/Grains & Oilseeds
 t. +852 2103 2377
e. jeanyves.chow@rabobank.com

**Ivan Choi**
Value-added processing Analyst
 t. +852 2103 2387
e. ivan.choi@rabobank.com