Outline

• Global Protein Situation
• Brazil & China (& India) in the Global Beef Complex
• Outlook and Watchlist
Global Protein Situation
Fundamental Demand Drivers

Population and Income
Global Demographics

• The global middle class is beginning a major wave of growth; **2 billion (2012)** to **4.9 billion (2030)**
  
  – David Rohde, Reuters

• Asia’s middle class spent **$4.8 billion** in 2010; by 2030 they will spend **$32.6 billion** (+580%)
  
  – OECD, Kiplinger
More food will be needed in the next 50 years, than was consumed in the last 7,000 years.

Source: US Department of Commerce, plus other published estimates.
**Key Shortages**

- Chinese beef*
- Chinese pork (pending)
- Russia beef, pork, and poultry*
- U.S., Canada, Mexico beef*
- U.S. pork (PEDv)*

**Key Surpluses**

- EU pork (due to Russian bans)
- Canada pork (due to Russian bans)
- India beef (buffalo expansion)
- Brazil beef (beef expansion)

*record high prices in 2014*
Global Meat and Broiler Production

2006-2015F

Source: USDA/FAS
World Meat & Poultry Consumption

cumulative change from 2013

U.S. Production, 2013
- Poultry: 16.9 MMT
- Pork: 10.5 MMT
- Beef: 11.7 MMT

Million MT

Source: UN/FAO, Agriculture Outlook to 2023
Global Beef Prices

Source: UN/FAO, Indexes: 2002-2004 = 100

October +25%
Rising Beef Profits

• Consumers are bidding for more beef
• Profits will translate into investment in infrastructure, R&D, product improvement throughout the global beef chain
• This is an enormous opportunity for global beef producers!
Global Beef Production

Source: USDA/FAS
5-Yr Change, Beef Production

Source: USDA/FAS, 2015F, carcass weight equivalent
5-Yr Change, Beef Production

Source: USDA/FAS, 2015F, carcass weight equivalent
Top Beef Importers

Destinations and Suppliers, 2013

Source: GTIS, AgriTrends, includes offal
Key Global Beef Importers

(source: GTIS, AgriTrends)
Global Cattle/Buffalo Slaughter

Source: USDA/FAS
Brazil & China (& India) in the Global Beef Complex

• **Brazil:** #1 Beef Exporter
• **China:** #1 Beef Importer*
• **India:** #2 Beef Exporter

* Including Hong Kong (more later)
Brazil Cattle and Beef

• Brazil could surpass the U.S. as the #1 beef producer within 2 years
• Expansion is underway; beef cows up 3% on Jan. 1, 2015
• Exports to grow by 9% in 2014, 10% in 2015
• Top markets (in order) of Russia, Hong Kong, Venezuela, Egypt, Iran account for 71% of total beef exports
Brazilian Beef

Source: USDA/FAS
China Cattle and Beef Demand

China (+Hong Kong)

*Imports as a % of Consumption*

Source: USDA/FAS
China (+Hong Kong) Beef

Source: USDA/FAS, carc weight equiv.
China Retail Meat & Poultry Prices

Change (RMB/KG)

- **Beef (leg)**: 41%
- **Chicken (frozen)**: 8%
- **Pork (rump)**: -17%

Source: China NBS, AgriTrends
Global Beef Exports to the Greater China Region (China+Hong Kong+Vietnam)

- India: 37%
- Brazil: 23%
- Australia: 15%
- U.S.: 10%
- Uruguay: 4%
- Argentina: 6%
- Canada: 3%
- Others: 2%

Source: GTIS, AgriTrends, 2014 YTD
Greater China Meat/Poultry Imports

2014 Imports = 3% of combined consumption

Source: USDA/FAS, includes China, Hong Kong, and Vietnam
China Corn

- China corn supplies are **HUGE**
- Demand has fallen due to pig liquidation

**and...**

- Pig farmers paid 2,466 rmb/ton (US$10.18/bu) last week???

1970’s poster “Reap an abundant harvest, store grain everywhere”
(source: Fred Gale, Dimsums blog)
China Ag Outlook

• China’s food self-sufficiencies are slipping; China to allow managed import growth

• Rising incomes will continue shift diets; China will need more corn, pork, oilseeds, and dairy

• Economic growth will slow, yet likely remain around 7.5% in 2014; that rate will double incomes in 10 years. Where will our commodity prices be then?
China Self-Sufficiency

A 1% decline in China’s self sufficiency equals:

- 2.1 mmt of corn
- 1.45 mmt of rice
- 1.21 mmt of wheat
- 538 kmt of pork
- 135 kmt of broilers
- 58 kmt of beef

Source: USDA/FAS, AgriTrends
Indian Cattle and Beef

• India is has the largest cattle inventory in the world.
• “Cow” slaughter (Brahman-bred) is banned in most states due to the religious nature of the majority Hindu population.
• Water “buffalo” slaughter is legal. This is the dairy herd. Production and exports of buffalo meat has grown significantly.
• India is now solidly the #2 exporter of bovine meat globally, and growing.
India’s 177 million Muslims account for most domestic beef consumption.
Global Beef Exports

• World Exports = $42 billion in 2013
  – 4 year average annual growth = 10%
  – Avg export $/lb = US$2.24/lb (excl. India)

• India Exports = $3.1 billion in 2013
  – 4 year average annual growth = 43%
  – Avg export $/lb = US$1.24/lb

“India caters to the meat demand of major Islamic countries as the meat is genuinely halal, lean and nutritious, more healthy than beef. Indian buffalo meat is ideal for processing since it retains more moisture and binds easily with ingredients. Indian buffalo meat is witnessing strong demand in international markets due to its lean character and organic nature. Also India has a cost advantage as Indian buffalo meat is most competitively priced red meat in the world”

Overview of The Indian Buffalo meat value chain, http://www.ficci.com/publication.asp
## India’s Top 15 Beef Exports

2013 metric tons and % of total exports

<table>
<thead>
<tr>
<th>Country</th>
<th>India</th>
<th>Brazil</th>
<th>U.S.</th>
<th>Canada</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vietnam</td>
<td>474,953</td>
<td>376</td>
<td>3,946</td>
<td>331</td>
</tr>
<tr>
<td>Thailand</td>
<td>167,632</td>
<td>13</td>
<td>219</td>
<td>3</td>
</tr>
<tr>
<td>Malaysia</td>
<td>121,070</td>
<td>560</td>
<td>34</td>
<td>24</td>
</tr>
<tr>
<td>Egypt</td>
<td>92,171</td>
<td>136,594</td>
<td>17,345</td>
<td>72</td>
</tr>
<tr>
<td>S. Arabia</td>
<td>70,616</td>
<td>50</td>
<td>57</td>
<td>1,363</td>
</tr>
<tr>
<td>Jordan</td>
<td>46,845</td>
<td>17,550</td>
<td>558</td>
<td>0</td>
</tr>
<tr>
<td>Philippines</td>
<td>43,747</td>
<td>13,911</td>
<td>7,323</td>
<td>359</td>
</tr>
<tr>
<td>Algeria</td>
<td>43,163</td>
<td>20,961</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>UAE</td>
<td>42,993</td>
<td>15,103</td>
<td>5,096</td>
<td>271</td>
</tr>
<tr>
<td>Iran</td>
<td>40,622</td>
<td>58,963</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Iraq</td>
<td>27,950</td>
<td>306</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Angola</td>
<td>27,035</td>
<td>19,997</td>
<td>1,182</td>
<td>128</td>
</tr>
<tr>
<td>Kuwait</td>
<td>20,521</td>
<td>1,240</td>
<td>2,603</td>
<td>0</td>
</tr>
<tr>
<td>Congo</td>
<td>18,158</td>
<td>269</td>
<td>4</td>
<td>0</td>
</tr>
<tr>
<td>Oman</td>
<td>13,832</td>
<td>214</td>
<td>125</td>
<td>0</td>
</tr>
<tr>
<td><strong>India's top 15</strong></td>
<td><strong>1,251,309</strong></td>
<td><strong>286,106</strong></td>
<td><strong>38,492</strong></td>
<td><strong>2,550</strong></td>
</tr>
</tbody>
</table>

Source: GTIS, Global AgriTrends
Forecasts / Watchlist
Global Beef Production

Past 6 years: 0 mmt
Next 9 years: 9 mmt

Source: UN/FAO, Agriculture Outlook to 2023
Global Beef Production

cumulative change since 2013

Source: UN/FAO, Agriculture Outlook to 2023
Global Beef Expansion

• Global and U.S. beef markets have been inflated by tight supplies and rising demand, particularly from China and the U.S.

• Higher global prices will spur **N. American** production higher, eventually. With U.S. cowherd expansion just beginning, it will be until 2017 at least before larger beef production can occur there.

• However, **Brazil** has been expanding for over 4 years now, and **India** is also expanding rapidly. These two countries will fuel global beef production growth initially, but the higher prices in N. America will build those supplies post-2017.
U.S. Beef Export Forecasts

2015f: 2.57 bil lbs, -1.3%

Source: USDA/ERS, AgriTrends forecasts
Watchlist

- Beef, pork, and poultry all profitable; but expansion will take time
- China sow liquidation / supply gap ahead
- China beef access? (India, Brazil, U.S., Ireland)
- TPP DOA?
- MCOOL timeline
- Am I suggesting infinite price growth? NO
- Key indicator: U.S. 90% Lean Prices
Denver, Colorado
www.globalagritrends.com

Services Offered:
• Global market research
• Specific market reports
• Email alerts/analysis
• Monthly newsletter
• Webinars / presentations

Brett Stuart
bstuart@globalagritrends.com
303-803-8716