Outline

- Trump’s Trade Wars
- ASF in China
- Beyond Trump Trade and ASF
  - Market Outlook
  - Rising Demand
Trump’s Trade Wars

Battle #1: Steel & Aluminum Duties

• Imposed worldwide March 1, 2018
• Exemptions initially granted to some (Canada/Mexico), but then revoked
• Exemptions today: EU, Brazil, Australia, Korea
• Exemptions desperately wanted: Japan, EU, Canada, Mexico, China
• Future thoughts:
  – Canada/Mexico to be granted exemptions on ratification of USMC (new NAFTA); Japan and EU if FTA is signed; China? “#@%$ NO”
Trump’s Trade Wars

Battle #1: Steel & Aluminum Duties

Meat and Poultry Casualties:
- **China**: initial 25% retaliation duty on U.S. pork (another 25% has been added since)
- **Mexico**: 20% duties on U.S. pork (#1 market, 1.8 BIL pounds, mostly hams)
- **Canada**: 10% duties on processed U.S. beef (20% of U.S. beef to Canada, 60 mil lbs)
U.S. and Canada Under Trump

• USMC Agreement
  – Basically the same NAFTA provisions for beef and pork
  – Duty free beef, pork
  – MCOOL is out
  – Friction over dairy reduced; but access granted was minimal

• The big issue is resolved. I think they will get along
Trump’s Trade Wars

CHINA:
• U.S. duties on Chinese goods: US$250 billion
  – Threatening US$267 billion more
  – And existing duties go from 10% to 25% on Jan 1, 2019
• Chinese duties on U.S. goods: US$110 billion

The big question: How does this end?
• Trump’s complaints:
  – IP theft, subsidized SOEs, market access, dumping
• How are those fixed? Can they be fixed?

Expectations:
• No deal from the Trump – Xi meeting on Nov 29
• Concerns of 25% duties in January raise pressure significantly for China; deal before Jan 1?
Trump’s Trade Wars: Agriculture

Are these actions misguided?

• Maybe? Balance of Trade targets are unreasonable
  – BUT encourage foreign nations to buy MORE U.S.
    • And what can they buy? Aircraft? Agriculture?
  • FTA talks announced with Japan, Britain, and EU
  • It’s too soon to tell with China
    – China has never opened to U.S. agriculture, outside of soybeans
    – Beef, pork, poultry, corn access to China, with no strings attached? YUGE....
    – But unlikely as China’s national food security would be weakened
But what about soybeans?

Weekly U.S. Soybeans to China

Source: CME, USDA/FAS Export Sales Data Query
China Restrictions on U.S. Ag

- Unworkable restrictions on beef
- Non-scientific residue requirements on pork
- HPAI ban on chicken
- GMO restrictions on grains (some lifted)
- GMO restrictions on hay; other stringent requirements
- AD/CVD duties on U.S. DDGs
- AD/CVD duties on sorghum
China Agriculture Imports?

• #1 Government Concern: **Social Stability**
• “Food security” is important for Social Stability
• So China must **KEEP farmers farming**
  1. Employment
  2. Feed themselves (avoid import dependence)
• **Imports must be “managed”**

Unfettered agriculture access to China would cause import surges, displace millions of peasant farmers and lead to dependence on U.S. and other nations
The Chinese people should hold the rice bowl in their own hands, and the bowl should contain the food produced ourselves.  - Xi Jinping

Sept 2018 - During an inspection to Beidahuang precision agriculture and agricultural machinery center, Heilongjiang province
ASF in China
Why ASF is a BIG DEAL

• Half of the world’s pigs
• 20% of global protein (Chinese pork)
• Shortages could drive global pork (and poultry and beef) markets higher
• The wreck is now inevitable
Facts on ASF

• The most feared hog disease globally; no vaccine, high mortality
• Carried by wild boars, warthogs, and bush hogs; also ticks, and food (pork) waste
• Typically through contact, but some studies show airborne infection
• No human health risk
• Only solution: cull and disinfect
Facts: ASF in China (cont)

• An estimated half or more of China’s hogs are on small farms, most lacking biosecurity.
• China has a widespread wild hog population.
• There are nearly 1.5 hogs per acre of farmland in China (0.2 in the U.S., 0.07 in Russia). The eastern one-third of China is very dense with hogs.
• Live hogs are still transported to wet markets in cities and villages.
<table>
<thead>
<tr>
<th>Item</th>
<th>ASFV survival time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Meat with and without bone and ground meat</td>
<td>105 days</td>
</tr>
<tr>
<td>Salted meat</td>
<td>182 days</td>
</tr>
<tr>
<td>Cooked meat (minimum of 30 minutes at 70 °C)</td>
<td>0</td>
</tr>
<tr>
<td>Dried meat</td>
<td>300 days</td>
</tr>
<tr>
<td>Smoked and deboned meat</td>
<td>30 days</td>
</tr>
<tr>
<td>Frozen meat</td>
<td>1 000 days</td>
</tr>
<tr>
<td>Chilled meat</td>
<td>110 days</td>
</tr>
<tr>
<td>Offal</td>
<td>105 days</td>
</tr>
<tr>
<td>Skin/Fat (also dried)</td>
<td>300 days</td>
</tr>
<tr>
<td>Blood stored at 4 °C</td>
<td>18 months</td>
</tr>
<tr>
<td>Faeces at room temperature</td>
<td>11 days</td>
</tr>
<tr>
<td>Putrefied blood</td>
<td>15 weeks</td>
</tr>
<tr>
<td>Contaminated pig pens</td>
<td>1 month</td>
</tr>
</tbody>
</table>

Source: Beltran-Alcudo et al., 2017

Source: UN/FAO Animal Health Risk Analysis, March 2018
China ASF

Bordering provinces = 35% of herd

ASF provinces = 63% of herd

98% of the swine herd is now under restrictions
Opinions: ASF in China

• The virus is likely spreading more widely than is being reported
  – China’s disease reporting is lacking

• **Media is being strictly controlled**
  – Reports of arrests for critical social media posts
  – “Radio silence”

• China’s central government is heavily involved
  – Potential for food supply issues, longer term
China consumes over 53 mmt annually...

Source: TDM, AgriTrends
China ASF – What Now?

1. **Watch prices**
   - (China, EU)

2. **Watch customs data**
   - China has stopped reporting their detailed data, but we can see other nations’ exports to China)
China Average Live Hog Prices

Weekly through Nov. 9, 2018

Source: Various sources
Regional China Live Hog Prices

Source: JCI

Northeast: Heilongjiang, Liaoning, Jilin
North: Shanxi, Henan, Shandong, Hebei
Central: Jiangxi, Hunan, Hubei
East: Shanghai, Zhejiang, Jiangsu, Anhui
South: Guangxi, Fujian, Guangdong
Southwest: Sichuan, Chongqing
Chinese Per-Capita Consumption
2017 est: pounds/capita

- Pork: 88
- Poultry: 18
- Beef: 13

Source: USDA/FAS
China Pork Imports

Pork Imports: All sources

Pork Imports: from the U.S.

2003 - 2018

Monthly through Mar 2018

Source: China customs
Bottom Line: China ASF

• China now has reported a largely-uncontrollable disease that could lead to mass culling
  – They may soon lift restrictions as control is no longer an option

• Vaccine is years away

• This virus will kill millions of pigs in China
  – But may take longer than many think
  – Import demand could surge after a short-term culling glut
  – Does China “buy U.S.”? Wildcard – WH Group?

• How does this end? There is no “end” in sight; maybe someday a vaccine?

• Timing is everything (and unknown)
Beyond Trump and Trade

Canada Pork Exports
U.S. Market Outlook
Watchlist
Canada Pork+PVM Exports
2018 YTD Change (ranked by 2017 size)

Metric Tons

U.S. China Japan Mexico Philippines S. Korea Taiwan Australia Chile N. Zealand Hong Kong Colombia Others

Total 2018 (1-8) change:
-26,625 mt, -3%

Source: Canada Customs
Japan Chilled Pork Imports

Monthly through Sep 2018

Source: Japan Customs
Canada Pork + PVM Exports

Source: Canada Customs, AgriTrends forecasts
What are the U.S. markets telling us?

- Pork production: +2.7%
- Pork cutout: -11%
- Chicken production: +0.7%
- Chicken breast: -2%
- Chicken LQ: -8%
- Beef production: +2.7%
- Beef cutout: +1%
Market Outlook

• Beef:
  – Global supplies remain tight
    • U.S. export demand remains strong
  – U.S. expansion is in its 4th year
  – The strong economy is supporting beef prices
  – Least downside risk over the next year

• Pork:
  – Supplies continue rising; prices under pressure
  – 2019 is all about ASF – will the U.S. have access?
    Or ASF?
U.S. Poultry Expansion

- “Between now and 2022, six other companies are also building new plants. Together, these expansions would add 11 million head per week, an 8 percent increase in live pounds over the next three to four years”
  — Sanderson President Lampkin Butts

<table>
<thead>
<tr>
<th>Company</th>
<th>Capacity</th>
<th>Location</th>
<th>Opening</th>
</tr>
</thead>
<tbody>
<tr>
<td>House of Raeford</td>
<td></td>
<td>Teacehey, NC</td>
<td>2018</td>
</tr>
<tr>
<td>Sanderson Farms</td>
<td>375 mil lbs</td>
<td>Tyler, TX</td>
<td>Early 2019</td>
</tr>
<tr>
<td>Simmons</td>
<td>850 mil lbs</td>
<td>Benton County, AR</td>
<td>2019</td>
</tr>
<tr>
<td>Lincoln Premium Poultry</td>
<td>2 mil birds/week</td>
<td>Fremont, NE</td>
<td>2019</td>
</tr>
<tr>
<td>Tyson Foods</td>
<td>1.25 mil birds/week</td>
<td>Humboldt, TN</td>
<td>Late 2019</td>
</tr>
<tr>
<td>Mountaire Farms</td>
<td>1.25 mil birds/week</td>
<td>Siler City, NC</td>
<td>2019</td>
</tr>
<tr>
<td>Bell &amp; Evans</td>
<td>2.6 mil birds/week</td>
<td>Fredericksburg, PA</td>
<td>2020</td>
</tr>
</tbody>
</table>
The vegans are losing…

…and expansion continues

Source: USDA, WASDE, AgriTrends
U.S. Per Capita Pork

Source: USDA
Exports to the rescue?

• 2019 exports would need to increase 20% to keep per capita supplies steady with 2018, which are record high
  – The equivalent of signing Lebron...

• Beef would need to increase +19%
  poultry +12%

• Does China buy due to ASF?
U.S. Pork Export Forecasts

2018f: 5.9 bil lbs, 4%
2019f: 6.2 bil lbs, 5%

Source: USDA, AgriTrends forecasts
Watchlist

• **China ASF**
  – Does a pork gap emerge? When?
  – Does China buy US pork?
  – Other ASF? (W. Europe, North or South America?)

• **Trade policy** downside risk is mostly reduced for pork
  – If Mexico duties come off in December
  – Better China access may be possible
  – Japan FTA would be bullish

• **U.S. consumer demand**
  – LOTS of MEAT & POULTRY (but a ‘bull’ economy)
One last point...
Global GDP and Meat & Poultry Consumption

$R^2 = 0.9941$

Actual 1970-2016
$38 billion more GDP creates demand for 140 mmt more meat and poultry.
The Future...

“... it is not the most intellectual of the species that survives; it is not the strongest that survives; but the species that survives is the one that is able best to adapt and adjust to the changing environment in which it finds itself.” - Charles Darwin

Adapt... or Perish
Questions?

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