U.S./China Market Update: Phase-1 Trade Agreement, Coronavirus, and ASF

Seth Meyer (MeyerSe@missouri.edu)

@SethMeyerMU on Twitter
What is the Analog to COVID-19

duration remains unknown, so are the lingering impacts

- A generous mix of ‘Holcomb, Kansas slaughter plant fire’ across several industries and......
  - Supply chain disruptions increase the spread between producers and consumers
- + The great recession (?)

Impacts really depend on the commodity
Real GDP growth

Source: IHS Markit, May 2020
U.S. real GDP

Billion 2012 Dollars

U.S. Meat Markets

Wholesale and Retail Beef

Index (Jan=100), 5-day moving average

- Boxed Beef Cutout Price (Choice/Select Avg.)*
- Average Advertised Retail Price**

2-Jan 2-Feb 2-Mar 2-Apr 2-May 2-Jun

Wholesale and Retail Pork

Index (Jan=100), 5-day moving average

- Pork Carcass Cutout Price*
- Average Advertised Retail Price**

2-Jan 2-Feb 2-Mar 2-Apr 2-May 2-Jun

*Beef: negotiated prices and volume of boxed beef cuts delivered within 0-21 days and on average industry cutting yields. Pork: negotiated prices and volume of pork cuts delivered within 14 days and on average industry cutting yields.

**Based on weekly national average of advertised prices, weighted based on carcass composition and interpolated to daily

Note: Wholesale represented by reports of “National Daily Boxed Beef Cutout And Boxed Beef Cuts - Negotiated Sales” and “National Daily Pork Report FOB Plant - Negotiated Sales”

Sources: USDA and staff calculations.

From the Kansas City Federal Reserve Bank
U.S. Beef and Pork Plant Capacity Utilization

U.S. Beef and Pork Plant Capacity Utilization

Percent of capacity, 5-day moving average

Daily Cattle and Hog Slaughter

y/y percent change (5-Day Moving Average)

Note: Excludes weekend operations.
Sources: USDA, National Pork Board, and KC Fed Calculations.

From the Kansas City Federal Reserve Bank
U.S. Per-Capita meat consumption

- The total amount of beef, pork, and poultry meat supplied to the domestic market in per-capita terms is projected to contract in 2021 and 2022 for the first time since 2014.

- Economic uncertainty will impede consumer spending for meat and dairy products.
Weekly Trade-Weighted U.S. Dollar Index
Crop supplies generally abundant across the globe

### Corn
- **Production**
- **Domestic Consumption**

### Soybeans
- **Production**
- **Domestic Consumption**

### Wheat
- **Production**
- **Domestic Consumption**
Wheat acres continue to decline in the U.S.

- Wheat acreage continues to decline - falling below 44 million acres - on relative returns to corn and soybeans.

- Wheat prices average about $4.80 over the next several years on large global supplies and competition with corn.
Corn and soybean planted acreage

- Spring flooding sharply reduced 2019 area planted from what it would have been
- USDA reports a strong rebound in soybean acreage and smaller increase in corn acreage in 2020
- With normal spring weather and continued strong soybean prices vs. corn, 2021 could see soybean area near the levels of 2017 and 2018

Source: FAPRI-MU baseline update, Aug. 2020
Derecho as seen by Short Aperture Radar (SAR) 
Courtesy NASA Harvest (Nasaharvest.org)
Drought/dry conditions expand across Iowa

Sept 1, 2020

May 5, 2020

Drought Classification
- None
- D0 (Abnormally Dry)
- D1 (Moderate Drought)
- D2 (Severe Drought)
- D3 (Extreme Drought)
- D4 (Exceptional Drought)
- No Data
Potential record crop yields keeping price in check

*bushels per acre, August Estimate*

**Corn**

**Soybeans**
2020 corn production estimates

- As always, the market outlook depends on the weather and the size of the crop
- In May, USDA projected a 16 bil. bu. corn crop, based on farmer intentions to plant 97 mil. a.
- Actual acreage is lower, and USDA’s August estimate is 15.3 bil. bu.
- ProFarmer’s survey suggested a smaller 14.8 bil. bu. crop due to derecho and drought effects
- Final crop size will differ, of course

Sources: USDA WASDE estimates, ProFarmer
Motor gasoline and ethanol domestic use

Source: FAPRI-MU baseline update, June 2020
Corn exports

- U.S. corn exports declined in 2018/19 and again in 2019/20 because of strong competition from Brazil and other exporters
- In August, USDA projected a rebound in U.S. exports in 2020/21
- China has been buying more, with imports projected to reach the 7 mmt tariff rate quota
- To reach the USDA projection for U.S. exports, other countries will need to import more as well

Source: USDA FAS, PSD Online, Aug. 2020
# Corn supply and use (mil. bu.)

<table>
<thead>
<tr>
<th></th>
<th>2019/20 (USDA)</th>
<th>2020/21 (USDA)</th>
<th>2020/21 (FAPRI)</th>
<th>2021/22 (FAPRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>13,617</td>
<td>15,278</td>
<td>15,075</td>
<td>14,854</td>
</tr>
<tr>
<td>Feed and residual use</td>
<td>5,600</td>
<td>5,925</td>
<td>5,858</td>
<td>5,757</td>
</tr>
<tr>
<td>Ethanol and coproducts</td>
<td>4,850</td>
<td>5,200</td>
<td>5,224</td>
<td>5,448</td>
</tr>
<tr>
<td>Other domestic use</td>
<td>1,410</td>
<td>1,425</td>
<td>1,406</td>
<td>1,417</td>
</tr>
<tr>
<td>Exports</td>
<td>1,795</td>
<td>2,225</td>
<td>2,172</td>
<td>2,344</td>
</tr>
<tr>
<td>Ending stocks</td>
<td>2,228</td>
<td>2,756</td>
<td>2,680</td>
<td>2,605</td>
</tr>
<tr>
<td>U.S. marketing year average price ($/bu.)</td>
<td>$3.60</td>
<td>$3.10</td>
<td>$3.24</td>
<td>$3.39</td>
</tr>
</tbody>
</table>

U.S. soybean prices have been surging.
Spring flooding reduced 2019 U.S. soybean production

The drop in total U.S. supplies was much smaller, because of large beginning stocks, due in part to the trade dispute

The sharp rebound in U.S. soybean production in 2020 could lead to record U.S. supplies, and 2021 could again see another large crop

Prices will face downward pressure unless the crop size shrinks or demand is very strong

Source: FAPRI-MU baseline update, Aug. 2020
U.S. Soybean Exports and Outstanding Sales to China

Source: FAS Export Sales
The increase in China’s soybean demand met by Brazil’s large(r) crop

18/19 to 19/20 soybean mkt changes

Brazil - US Soybean FOB Spread ($/MT)

Source: IGIC
Soybean exports

- Total soybean imports by China dropped sharply in 2018/19 because of African Swine Fever effects on pork production and retaliatory tariffs.
- The rebound in China’s imports has been strong, as the hog herd expands again and the Phase 1 deal encourages U.S. exports to China.
- Brazil’s exports of soybeans now far exceed U.S. exports and prospects for 2020/21 depend in part on crops yet to be planted in S. America.

Source: USDA FAS, PSD Online, Aug. 2020
## Soybean supply and use (mil. bu.)

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<th>2019/20 (USDA)</th>
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<th>2020/21 (FAPRI)</th>
<th>2021/22 (FAPRI)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Production</td>
<td>3,552</td>
<td>4,425</td>
<td>4,425</td>
<td>4,367</td>
</tr>
<tr>
<td>Crush</td>
<td>2,160</td>
<td>2,180</td>
<td>2,181</td>
<td>2,213</td>
</tr>
<tr>
<td>Seed and residual</td>
<td>51</td>
<td>140</td>
<td>137</td>
<td>130</td>
</tr>
<tr>
<td>Exports</td>
<td>1,650</td>
<td>2,125</td>
<td>2,133</td>
<td>2,124</td>
</tr>
<tr>
<td>Ending stocks</td>
<td>615</td>
<td>610</td>
<td>603</td>
<td>517</td>
</tr>
<tr>
<td>U.S. marketing year average price ($/bu.)</td>
<td>$8.55</td>
<td>$8.35</td>
<td>$8.24</td>
<td>$8.69</td>
</tr>
</tbody>
</table>

Sources: USDA's World Agricultural Supply and Demand Estimates, Aug. 2020 and FAPRI-MU baseline update, Aug. 2020. Note: FAPRI projects 88.6 mil. acres planted in 2021, vs. 83.8 mil. acres in 2020, while yields fall from a record 53.3 bu./acre in 2020 to a trendline 50.0 bu./acre in 2021.
Chinese soybean imports and crush suggest a strong turn around in their hog herd
Will China fill the TRQs?

<table>
<thead>
<tr>
<th></th>
<th>Corn</th>
<th>Wheat</th>
<th>Rice</th>
<th>Sorghum</th>
<th>Cotton</th>
</tr>
</thead>
<tbody>
<tr>
<td>TRQ</td>
<td>283 mil bu</td>
<td>354 mil bu</td>
<td>117 mil cwt</td>
<td>NA</td>
<td>4.1 mil Bales</td>
</tr>
<tr>
<td>Past fill rate (2016)</td>
<td>44.00%</td>
<td>35.40%</td>
<td>67%</td>
<td>NA</td>
<td>100%</td>
</tr>
<tr>
<td>STE % of past quota</td>
<td>60%</td>
<td>90%</td>
<td>50%</td>
<td>NA</td>
<td></td>
</tr>
</tbody>
</table>

- China says no change to TRQ levels
- State Trading Entities (STE) like COFCO still get quota, but several other changes
- USDA forecasts China will not exceed TRQ for corn in 2020
  - Just booked 1.76 mmt from the US (2020/21)
- No TRQ on sorghum or DDGS
- Exceeded cotton TRQ regularly (expanded TRQ)
China wheat and rice import pace relative to TRQ (both the subject of a WTO case by the U.S.)

Cumulative China wheat imports relative to TRQ

Cumulative China rice imports relative to TRQ
Corn sales to China have been sharply higher:
- Mid-July 76 million bushels
- End-July 69 million bushels
- End August 23 million bushels

These are historically BIG sales to China (and big in general).
SAR picks up hurricane effects in China as well
China’s corn and soybean trade (and trade dependence)

**Corn**

- Production
- Imports (net)

**Soybeans**

- Imports (net)
- Crush

[Graph showing corn and soybean trade trends over years]
Pork Production vs. Export Growth

Billion Lbs. vs. 2015, Cumulative

- 2016
- 2017
- 2018
- 2019
- 2020
- 2021

Production
Exports
Weekly Pork Shipments to China

![Line graph showing weekly pork shipments to China from 2015 to 2020, with data points for 2015-18 average, 2019, and 2020.]
Phase 1 agreement, Jan 15
$36.5 bln CIF in 2020, $43.5 bln in 2021

Current USDA FY2020 forecast is ≈$15 bln CIF

2017 Base  Phase 1
China imports toward Phase through July 2020
Imports measured CIF, July is a forecast
COVID-19 impacts on 2020 net farm income*

*Unpublished FAPRI report, Westhoff April 2020
U.S. federal government direct payments to farmers

FAPRI assumes $11 billion of CFAP, USDA assumes all $16 spent

Two measures of U.S. farm income

Thanks!

- FAPRI-MU website: [www.fapri.missouri.edu](http://www.fapri.missouri.edu)
- Follow us on Twitter: @FAPRI_MU
- Follow me on twitter @SethMeyerMU
- meyerse@missouri.edu

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