

In The Cattle Markets

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What are Total Export Commitments Telling Us about Beef's Potential in 2020: Positive Signs?

Overarching Market Conditions

The recent cattle on feed report suggests that cattle feedlots are coming closer to sorting through much of the backlog associated with plant closures and shutdowns as a result of plant workers testing positive and plants implementing CDC and OSHA worker health recommendations. For example, the number of cattle on feed over 90 days has dipped below 2019 levels for the first time since April. However, cattle on feed over 120 days is still about 10% higher than 2019. The result of cattle being on feed longer is sustained record level dressed weights for both steers and heifers. Heavier carcasses has led to higher beef production in recent months relative to 2019 putting downward pressure on cattle prices. With net feedlot placements (i.e. feedlot placements - feedlot marketings) higher than 2019 and the five year average, cattle feedlots look like they are once again reloading with cattle less than 700 lbs. potentially sustaining record beef production in the long term that will need to be consumed. With lower, but growing, domestic demand and concerns about what a second government shutdown might do to domestic demand, beef export demand is likely to play a larger and more prominent role in sustaining domestic cattle prices.

Total Beef Export Commitments

One way to monitor beef exports is through USDA-FAS weekly export sales report. This report shows the number of exports occurring that week, total number of sales that have occurred during the calendar year, previous sales that have not shipped during the calendar year, previous sales planned for this calendar year but were cancelled, and sales scheduled to ship in future years. From this weekly data, one can calculate total sales commitments within a given week (i.e. weekly exports_t + accumulated exports_{t-1} + outstanding sales_t) which can be viewed as a leading indicator for export potential.

Exports have partially dampened the effect of lower domestic beef demand resulting from government restrictions due to COVID-19 concerns. Given the importance of beef exports how was 2020 shaping up relative to 2019, both pre and post COVID-19? Figure 1 (right axis) plots the historical weekly total sales commitments for 2020 as a percentage of 2019. There was a large number of total commitments in January and February as a result of numerous trade deals completed in prior years. As COVID-19 concerns grew, exports sales began to lag in the middle of February and ultimately dropped from a high of 200% of 2019 total commitments to 15%. Since then 2020 total commitments have continued to deteriorate staying at about 96% of 2019 total commitments, on average, since the beginning of May. Clearly COVID-19 has impacted beef export commitments.

So how much has COVID-19 hurt beef total commitments and what does the 2020 ending total export sales commitment look like? These questions can be partially answered by

looking at recent historical export total commitment seasonal patterns and then overlaying these seasonal patterns onto 2020. Export sales tend to follow a seasonal pattern, like most agricultural products. Figure 2 plots this seasonality using each weeks beef total commitments as a proportion of year ending accumulated total commitments. For example, we would interpret the value of 0.63 in 2019 on week 26 as 63% of all commitments occurred prior at end of the 26nd week of the year. Figure 2 clearly indicates that while each year slightly varies, export total commitment patterns have stayed relatively stable since 2015. I use these seasonal patterns to calculate what the hypothetical year ending total commitments were projected to be each week in 2020. Figure 1 (left axis) plots the estimated total commitments (in metric tons) for 2020. At the peak in February it was estimated that 2020 year ending total commitments were estimated to be 1.2 million metric tons. Since COVID-19 estimated year ending total commitments are now at approximately 0.9 million metric tons.

If the proportion of total commitments relative to 2019 held since the beginning of May holds for the rest of 2020 then the estimated weekly sales for the rest of 2020 would be 96% of 2019 commitments in that week. Given this assumption, estimated 2020 ending total commitments at the end of December would be 862,881 metric tons. This would be approximately 22% lower than the projected estimates in January 2020, 30% lower than the peak of total commitments in February 2020, and 20% lower than March 2020, when the U.S. declared COVID-19 a pandemic.

Chinese Overtones in Global Beef Market

China is a large driver of world beef export sales up about 41% from 2019. Although the US has a relatively smaller share of these imports compared to Brazil, Argentina, and Australia. There are fewer US beef exports to China due to the majority of cattle not meeting Chinese traceability and production requirements. Larger than average Chinese beef sales is largely due to the continuing African Swine Fever (ASF) issues occurring in Southeast Asia and Eastern Europe. Panel (a) and (b) in Figure 3 shows the reported and resolved ASF cases in Southeast Asia and Eastern Europe respectively, from January 2020 to August 2020. There has been sustainable progress in eliminating ASF from hog production systems but there still remains a sizable protein gap both in the short term and midrange forecasts. How well these areas of the world do at controlling ASF will likely continue to a primary demand pull of US beef export sales.

FAPRI Forecasts

So how well are economic forecasts incorporating these export and domestic demand conditions? This past week, the Food and Agricultural Policy Research Institute (FAPRI) at the University of Missouri updated their five-year baseline forecast for beef. Their estimates (see Supporting Table 1 below) continue to support the idea the US cattle cycle has peaked and will continue to contract over the next five years. Despite declining beef cows, total beef production is forecasted to be relatively stable at 27 billion pounds per year. Stable production given declining count number can be attributed to heavier carcasses and more efficient feeding systems. Net exports (beef exports – beef imports) is expected to widen from +140 in 2021 to +245 in 2025 largely due to ASF and increasing global competitiveness of US beef. Smaller cow numbers will reduce the size of future calf crops reducing the number of feeder and fed cattle marketed and ultimately boxes of beef available to be sold. Combined, this has the effect of raising prices along the supply chain. Planning prices in 2021 were estimated as follows: boxed beef @ \$221 per cwt., 5-area steers @ \$113 per cwt., and OK City feeder steers @ \$151 per cwt.

Markets

<i>Data Source: USDA-AMS Market News</i>		Week of 8/28/20	Week of 8/21/20	Week of 8/30/19
5-Area Fed Steer	all grades, live weight, \$/cwt	\$105.09	\$106.59	\$105.59
	all grades, dressed weight, \$/cwt	\$166.53	\$169.41	\$171.52
Boxed Beef	Choice Price, 600-900 lb., \$/cwt	\$229.91	\$222.50	\$234.35
	Choice-Select Spread, \$/cwt	\$16.56	\$16.99	\$22.50
700-800 lb. Feeder Steer	Montana 3-market, \$/cwt	--	--	\$144.14
	Nebraska 7-market, \$/cwt	\$153.59	\$156.83	\$151.22
	Oklahoma 8-market, \$/cwt	\$140.62	\$144.44	\$140.67
500-600 lb. Feeder Steer	Montana 3-market, \$/cwt	--	--	\$150.00
	Nebraska 7-market, \$/cwt	\$169.81	\$170.69	\$165.29
	Oklahoma 8-market, \$/cwt	\$152.96	\$158.77	\$149.47
Feed Grains	Corn, Omaha, NE, \$/bu (Thursday)	\$3.32	\$3.12	\$3.70
	DDGS, Nebraska, \$/ton	\$136.50	\$127.40	\$131.50

Supporting Tables

Calendar Year	2021	2022	2023	2024	2025
<i>Production (mil. head)</i>					
Beef Cows (Jan 1)	30.9	30.4	30.2	30.1	30.0
Cattle & Cows (Jan 1)	94.2	93.2	92.2	91.4	90.9
<i>Beef supply and use (mil. lb.)</i>					
Domestic Use	27,470	27,234	27,145	27,047	27,054
Exports	3,173	3,284	3,337	3,400	3,421
<i>Prices (\$/cwt.)</i>					
Beef Retail	636	642	665	685	702
Boxed Beef Cutout	221	230	240	247	252
600-500 lb. Oklahoma City	151	164	171	174	179
Feeder Steers					
Total all grades, 5 area steers	113	120	125	128	131

Supporting Figures

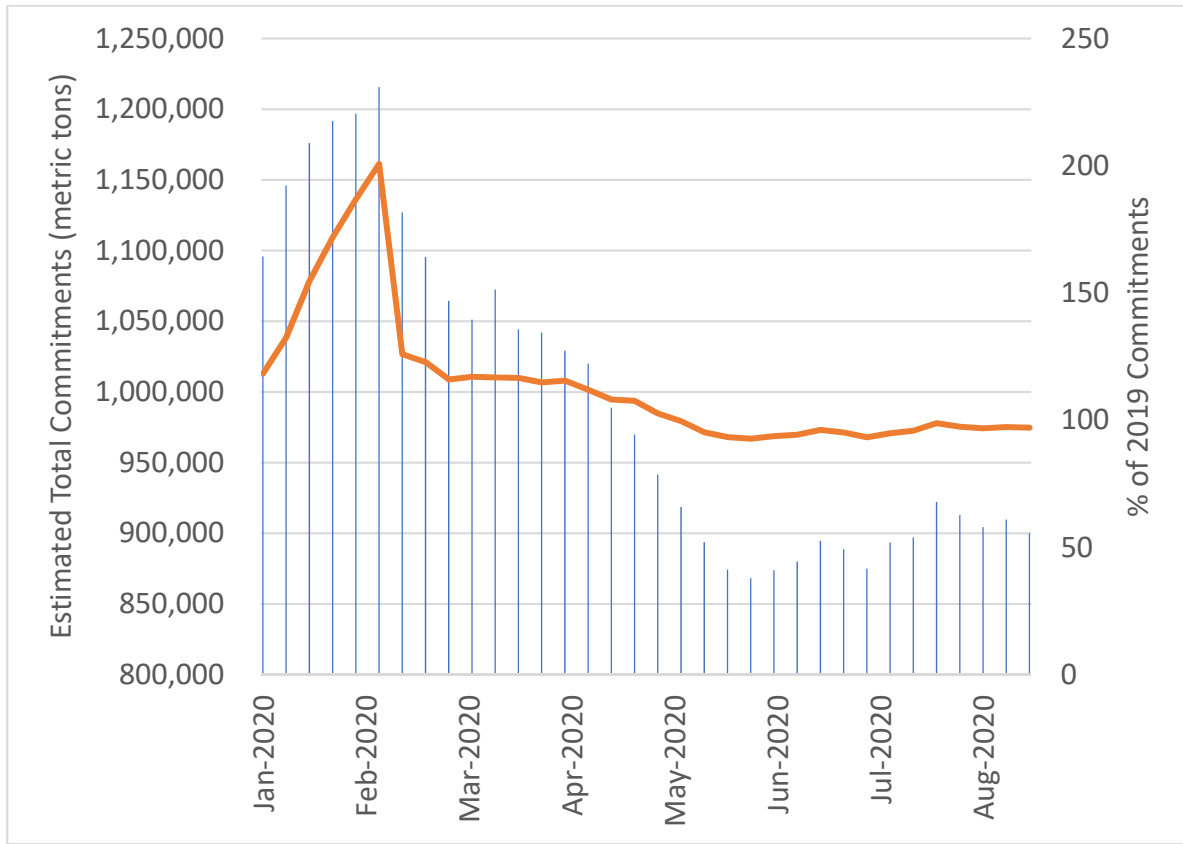


Figure 1. Estimated Weekly Ending Total Commitments for 2020 and 2020 Observed Sales as a Percentage of 2019 Sales Commitments

Source: USDA-FAS (2020), Compiled and Analysis by Author

Note: Total sales commitments within a given week (t) are calculated as accumulated weekly exports $_t$ (i.e. weekly exports $_t$ + accumulated exports $_{t-1}$) plus outstanding sales $_t$.

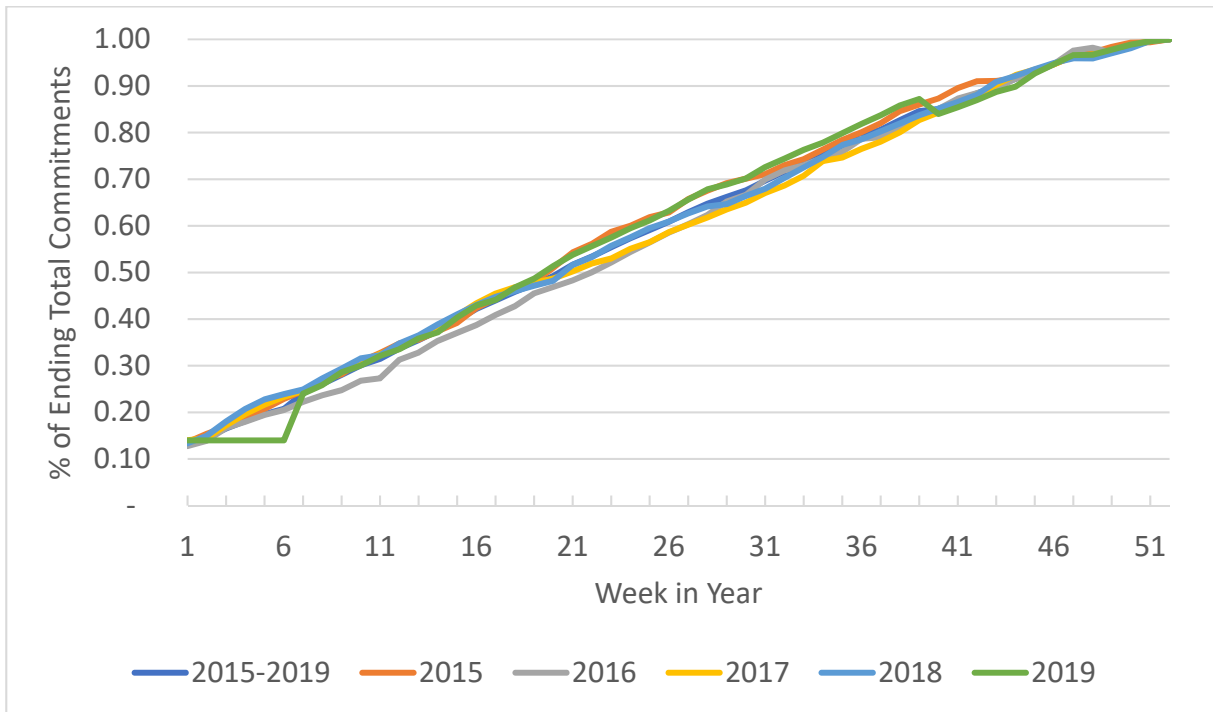


Figure 2. Weekly Commitments as a Percentages of Accumulated Year End Total Commitments, 2015-2019

Source: USDA-FAS (2020), Compiled and Analysis by Author

Note: Total sales commitments within a given week (t) are calculated as accumulated weekly exports_t (i.e. weekly exports_t + accumulated exports_{t-1}) plus outstanding sales_t.

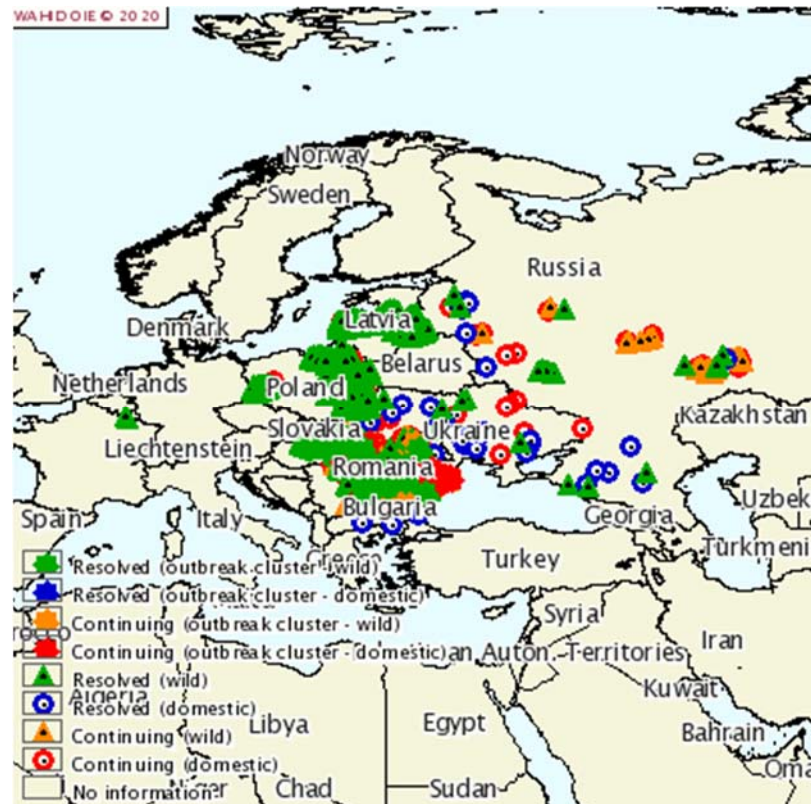
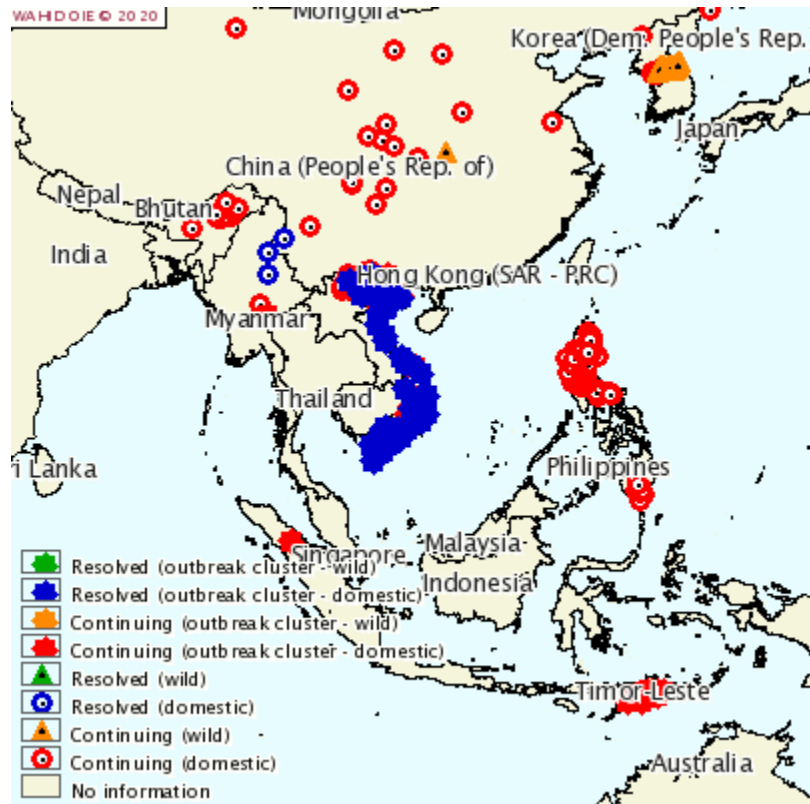


Figure 3. African Swine Fever Outbreak Map, Select Locations with Disease Status, January 1, 2020 to August 29, 2020

Source: OIE (2020), Compiled by Author