Diagnosing Possible Capacity Issues for U.S. Pork Producers

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Figure 1 compares weekly U.S. pork packing plant capacity[1] against actual[2] and projected weekly hog slaughter implied by the September USDA Hogs and Pigs report.[3] The solid lines, pink (2019) and blue (2020), show actual slaughter and the dotted line shows projected slaughter. The solid blue line is at 95% capacity and the 2020 projection (dotted blue line) exceeds 100% capacity.

The September Hogs and Pigs report provides an estimate of U.S. market hog inventories by weight category as of September 1, 2020. The inventory of pigs weighing 180 pounds and over was up 9.8% compared to one year ago. These hogs were (should have been) marketed in September through mid-October. Pigs weighing 120 to 179 pounds were up 6.1% and are intended to be marketed mid-October through mid-November. Pigs weighing 50 to 119 pounds were down 3.5% and are expected to reach market weight mid-November through early-January. Pigs weighing less than 50 pounds were down 3.5% and should be marketed in January and February of 2021. This information, combined with previous Livestock Slaughter reports, can be used to approximate the number of hogs that will be coming to market in the near-term.

There is considerable debate about the most recent Hogs and Pigs report. For the six weeks since September 1, weekly federally inspected hog slaughter was down 0.8% compared to the same period in 2019, which is far below the 9.8% rise implied by the report. Obviously, 2020 has unusual dynamics—slower growth rates could mean hogs are more evenly spread across market weight categories, as opposed to front-end loaded as the Hogs and Pigs report implies. If slaughter rates approach 6.1% to 9.8% above one year ago, then the pork industry may face a capacity constraint, relative to market-ready hog supplies, in the November–December period. This will be particularly troublesome if the COVID-19 pandemic once again limits packing plant capacity. If the larger market hog inventories do not materialize, USDA will revise the September 1 market hog inventory estimates in the December report.

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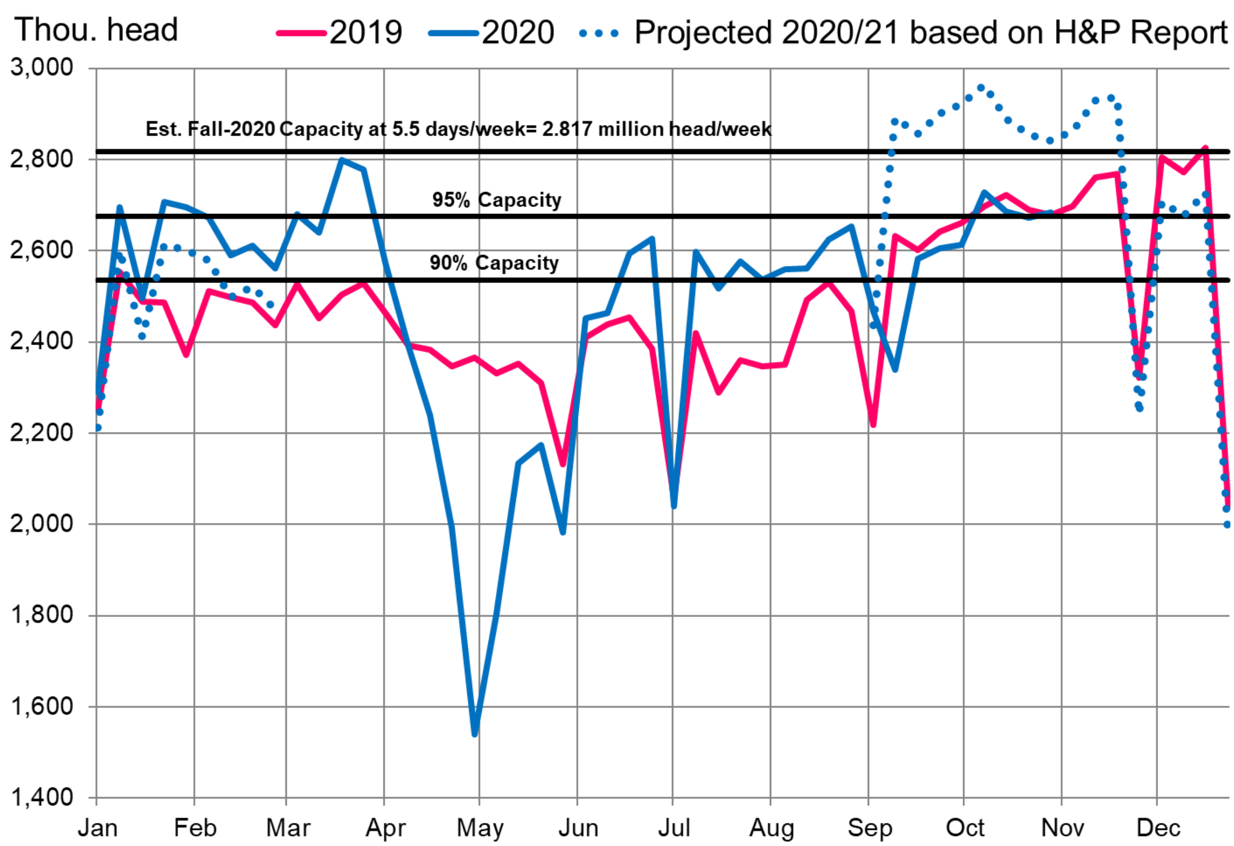
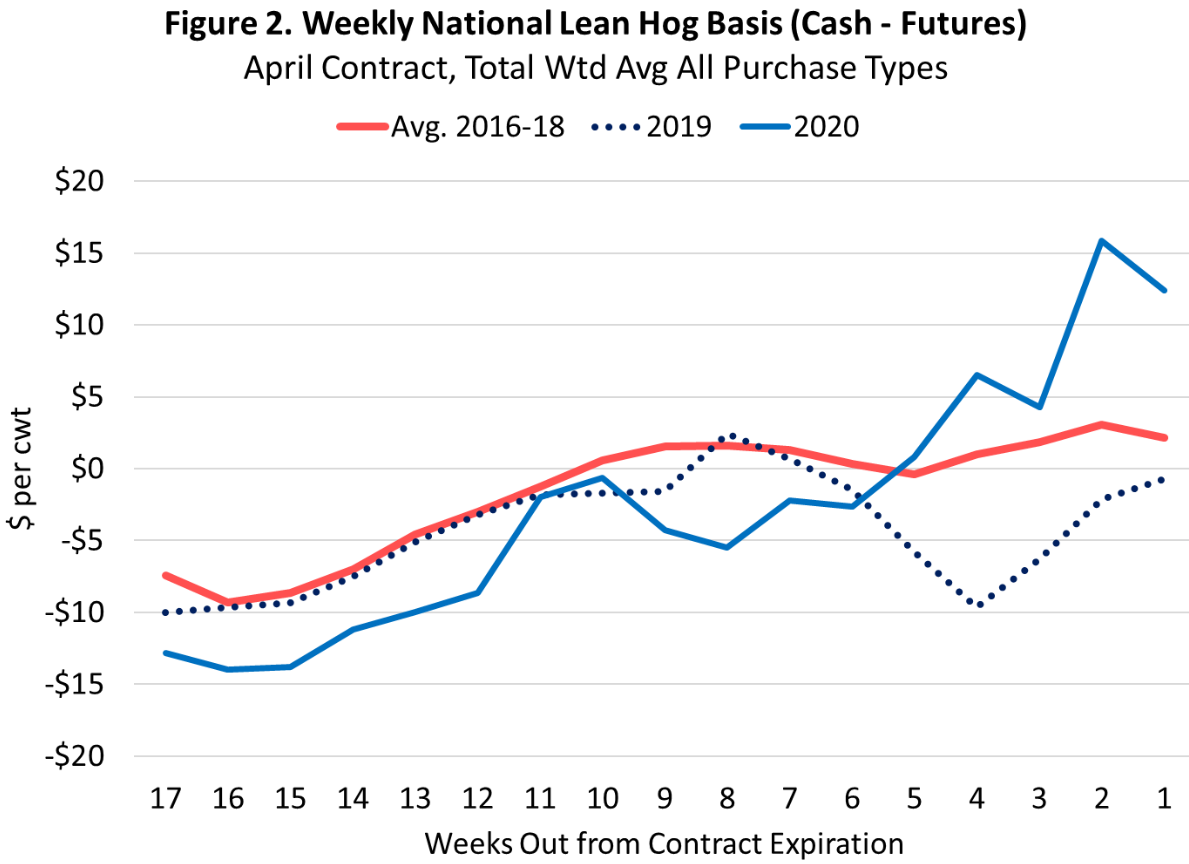
[1] See Pork packing: Just what is capacity? https://cet.gcp.informamarkets.com/sites/cet.com/files/nhf-porkpackerreport_0.pdf.
[2] See Daily Livestock Slaughter (SJ_LS710) https://mymarketnews.ams.usda.gov/viewReport/3208 and Actual Slaughter Under Federal Inspection (SJ_LS711) https://mymarketnews.ams.usda.gov/viewReport/3206.
[3] See Quarterly Hogs and Pigs https://downloads.usda.library.cornell.edu/usda-esmis/files/rj430453j/gt54mb17j/1j92gz287/hgpg0920.pdf.

One of the functions of futures markets is to anticipate the worst and, not surprisingly, futures markets took a big hit from COVID-19-induced disruptions in the spring of 2020. Lean hog basis is defined as the difference between the cash price for hogs and the nearby lean hog futures price (i.e., basis = cash price – futures price). A strong basis provides a signal to producers to market hogs and take the basis, especially producers who have hedged (i.e., sold futures). In contrast, a weak basis, like in 2019, is a signal to delay marketings with the idea that the basis is likely to return to a more normal level. Prior to the expiration of the April 2020 lean hog futures, the futures market dropped in anticipation of possible plant closures, which caused a very strong positive basis and acted as a signal to market hogs early (see figure 2). The same situation could happen again—lean hog futures prices could come under pressure if supply and/or demand disruptions are expected. If so, an historical departure in basis could occur and producers will receive a signal to market hogs early.

Figure 1. Hog Slaughter, Federally Inspected, Weekly





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