

# NC STATE ECONOMIST

## Pork, Pandemics and Politics: U.S. Agricultural Trade with China

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### A Pandemic Challenges Predictions

Prior to the coronavirus pandemic, many U.S. agricultural sectors were expecting 2020 to be a year of improvement after several years of a depressed agricultural economy. In particular, the promised resolution of trade issues with China led to expectations that exports of many U.S. agricultural products would resume. Further, because African swine fever had greatly reduced pork production in China, the world's larger consumer of pork, that nation's import demand for meat was expected to increase dramatically, creating export opportunities for the U.S. poultry and the livestock sector. But that was February.

At the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) Agricultural Development Forum in early February, in my outlook presentation on North Carolina agriculture, I told State Commissioner of Agriculture Steve Troxler and the audience to expect a good year for our burgeoning pork and poultry sector. How dramatically the world can change in a couple of months! The coronavirus pandemic has completely reversed expectations for the agricultural sector. What looked to be a very promising year will now be one of the most challenging years for the agricultural economy in recent history. In particular, trade with China — historically our largest trading partner — is mired in a complicated mix of international politics, the economic impacts of a coronavirus pandemic and a swine disease that in 2018 and 2019 devastated the supply of China's predominant protein source. How will this mix of forces affect U.S. agriculture in this challenging year?

### A Once Favorable Outlook Led to Expansion

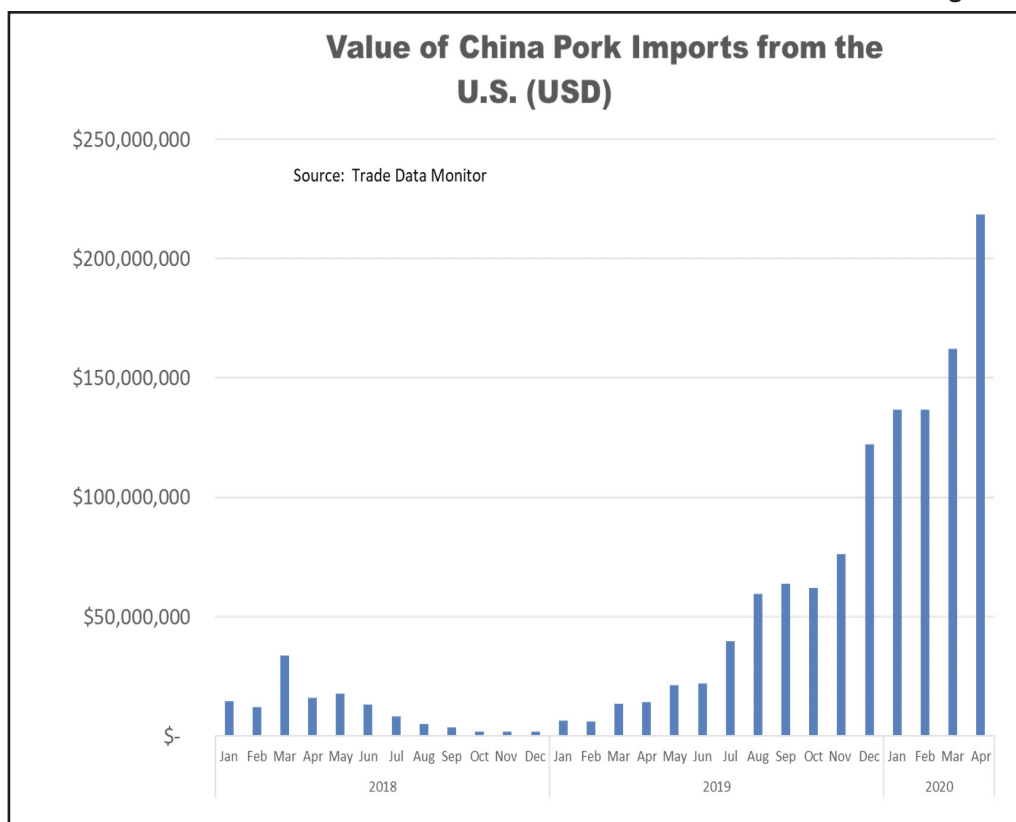
A discussion of what demand for U.S. agriculture products looked like before the coronavirus pandemic is useful in understanding the impact of the pandemic. In February, the USDA issued its 2020 net farm income forecast at \$96.7 billion; up 3.3% from 2019. Expectations were that farm receipts in the livestock sector would be up in 2020.<sup>1</sup> This was in part due to a strong U.S. economy, but also due to solid export demand for meat, especially exports to China as that country grappled with an assault on its domestic pork production.

In 2018 African swine fever (ASF), a disease fatal to pigs (but not passed to humans) entered Asia, devastating China's swine industry. China's consumption of 50% of the world's pork had been mostly met by its domestic production, which consists of many small pig farms and a growing number of large-scale commercial pig farms. Neither size farm had sufficient biosecurity measures to avoid the devastating impacts of ASF. Consequently, ASF is expected to result in a 37% reduction in Chinese pork production from 2018 to 2020.<sup>2</sup> This means that from 2018 to 2020 almost 19% of the global swine herd disappeared due to ASF.

The large reduction in Chinese pork production resulted in a corresponding increase in China's import demand for meat; mainly pork and poultry and to a lesser extent beef. The incidence of ASF followed close on the heels of the initiation of the trade war between the U.S. and China. Prior to ASF, China had set retaliatory tariffs on U.S. pork of upwards 72%. As a result U.S. pork exports to China had fallen to near zero in the summer of 2018 (Figure 1). But as ASF decimated pork supplies in China and consumer prices of pork soared, China began importing U.S. pork again.<sup>3</sup> Despite the high tariffs, exports of U.S. pork to China increased in 2019 and continued to grow in 2020. ASF was likely a factor in China's willingness to move toward resolution of the trade war with the U.S. In January 2020 the Trump administration announced Phase 1 of resolution of trade negotiations in which China was to purchase \$40 billion in U.S. agricultural goods annually over the next two years.

In May 2020 China announced that U.S. pork and soybeans would be eligible for exemptions on import tariffs.<sup>4</sup> With both the impacts of ASF and movement toward resolution of the trade war, China's pork imports from the U.S. rose to over \$218 million in April 2020. China also lifted a ban on chicken imports from the U.S. that had been in place prior to the trade war. Consequently, imports of U.S. chicken increased from zero to \$21.6 million in March and to \$33.6 million in

**Figure 1**



April 2020.<sup>5</sup> Then, on June 1, as a result of heightened tensions between the U.S. and China over governance of Hong Kong and issues concerning early handling of the coronavirus, China instructed state-owned companies not to import U.S. agricultural goods.<sup>6</sup> However, China chose *not* to rescind waivers on U.S. agricultural products, nor did the Chinese government instruct private companies to halt imports.

In all, given the continuing strong

export demand for pork and poultry from China combined with a strong domestic economy, U.S. pork and poultry companies expanded production anticipating a profitable 2020. The coronavirus pandemic turned that expectation on its head.

**Coronavirus Disrupts the Meat Supply Chain**

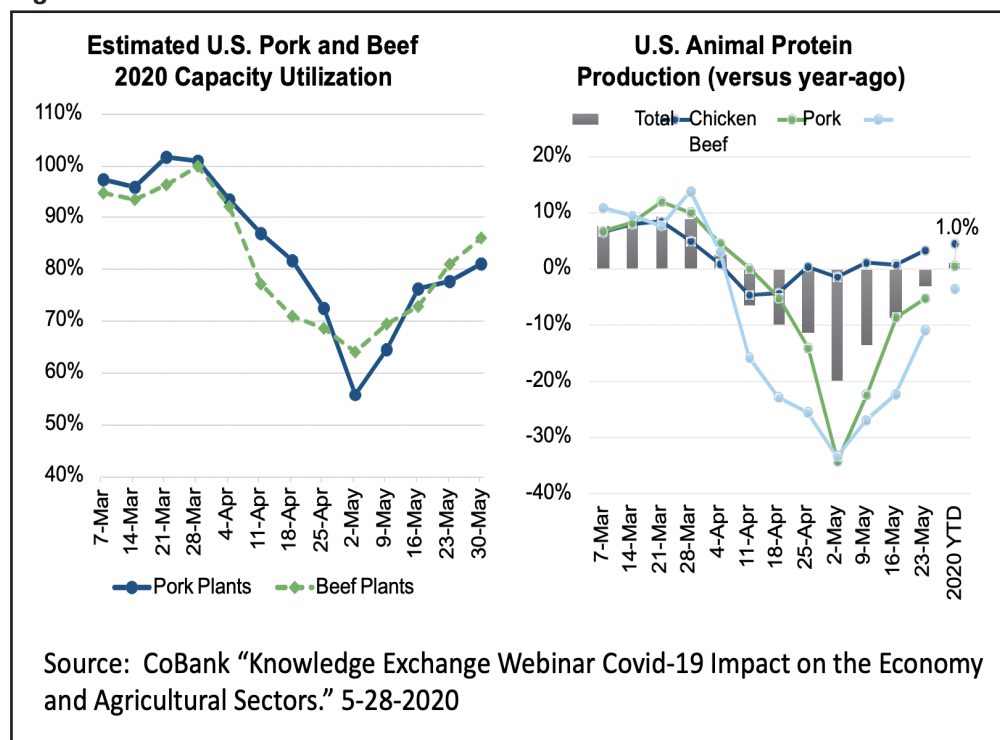
The disruption of supply chains is perhaps the largest impact of the coronavirus pandemic on the U.S. agricultural sector to date. Specifically for meat and poultry, supply flow has been disrupted by closure or slowdowns at processing facilities. COVID-19 illness outbreaks have closed, mostly temporarily, meat and poultry processing facilities around the country. The president of one large integrator said in early May that slaughter capacity for hogs had dropped about 50% since the pandemic.<sup>7</sup> Combined beef, pork and chicken production from processing plants was down an estimated 13% as of the end

of April compared with the previous year. The slowdown of the supply chain reduces the supply of product available both domestically and for exports. However, the situation is improving: large meat and poultry processing plant capacity has recovered substantially since the low levels of late April and early May (Figure 2). In particular, chicken production did not slow as much as pork or beef production and in late May was slightly higher than production at the same time in 2019.

### Impacts on Processing in North Carolina

Hogs and poultry are big business in North Carolina. North Carolina ranks second in the nation in hog and turkey production and third in chicken production. The state has 16 chicken and three turkey processing and slaughter plants in North Carolina. Most of these are large facilities that slaughter and process poultry grown on contract. This number also includes the country’s largest turkey processing and slaughter plant near Goldsboro, North Carolina. A number of these plants have had to close temporarily due to COVID-19 outbreaks among workers. Most have had to modify operations to minimize the chances of outbreaks. One source indicates that one quarter of poultry processing plants in the U.S. may have experienced a temporary shutdown.<sup>8</sup>

**Figure 2**



There are 23 facilities that slaughter or process hogs. A number of these are small plants that do custom work for small local meat producers. But the number includes the largest pork slaughter and processing facility in the world located in Tarheel, North Carolina. A number of hog slaughter and processing facilities outside North Carolina have had to temporarily close due to COVID-19 outbreaks. As with poultry, all facilities

have had to modify operations to mitigate the risk of COVID-19 outbreaks among employees. Both closures and modifications reduce throughput, creating a bottleneck in the supply chain from farm to consumer. These bottlenecks have created backlogs of animals at the farm, depressing markets for livestock. The May lean hog futures declined 38% in April. At the consumer level the bottlenecks have caused meat and poultry prices to rise. The Bureau of Labor Statistics reported that its price index for meat, poultry and fish rose 4.3% in April. Similarly, meat and poultry supplies available for export are smaller and prices higher.

### Effects on Other Commodities

Even though pork is at the center of China’s demand for U.S. agricultural products, other agricultural commodities are impacted by the trade war, ASF and the coronavirus pandemic as well. As noted, demand for poultry (a substitute for pork) imports from the U.S. have risen, but demand for feedstuffs

has also been impacted. Early on, elimination of over 37% of China's swine herd (almost 19% of the global swine herd) caused China's demand for feedstuffs, primarily soybeans and corn, to decline. But feedstuff demand by the expansion in U.S. poultry and swine production helped offset lower demand by China for the same commodities. But, when the coronavirus pandemic disrupted the meat and poultry processing supply chain, causing the industry to put the brakes on expansion of production, this reduced immediate demand on feedstuff commodities, wreaking havoc in agricultural commodity markets.

Perhaps the biggest factors affecting U.S.-China trade relations are non-economic. The tensions over the origin of the coronavirus and governance of Hong Kong certainly have the potential to derail Phase 1 of the trade agreement. But as noted earlier imports of U.S. pork and poultry by China have continued to rise despite the heightened tensions. Consumer demand for pork in China may trump heightened tensions over coronavirus and Hong Kong governance. Exports of U.S. agricultural products to China in May and the coming months will tell us.

## Looking Ahead

What will be the net effect of these conflicting forces? Demand for meat and poultry is strong in spite of pandemic-related challenges, especially export demand from China, but bottlenecks in processing have severely limited the supply of U.S. meat and poultry. Processing capacity is improving but still remains below capacity prior to the coronavirus pandemic. China is unlikely to fulfill its Phase 1 stated objective of \$40 billion in purchases of U.S. agricultural products this year. But Chinese consumer demand may trump heightened tensions between the U.S. and China so that U.S. exports of pork to China continue to rise. U.S. exports of all agricultural products to China may not set new records, but exports of pork may continue at record levels. The U.S. poultry industry should benefit as well. Still, this will be a very difficult year for the U.S. agricultural economy. Ironically and despite the challenges, U.S. exports of agricultural products to China will still be one of the few bright spots.

## Endnotes

- 1 "Highlights From the February 2020 Farm Income Forecast Farm Sector Profits Forecast Near Average in 2020" USDA-ERS (<https://www.ers.usda.gov/topics/farm-economy/farm-sector-income-finances/highlights-from-the-farm-income-forecast/> May 14, 2020.)
- 2 Livestock and Poultry: World Markets and Trade. April 9, 2020. USDA-FAS
- 3 Speck, A. (April 16, 2020) Blog: Will China Really Buy US Pork During Covid-19? (IHS Markit) (<https://ihsmarkit.com/research-analysis/will-china-really-buy-us-pork-during-covid19.html>)
- 4 "China announces new tariff waivers for some US imports." CNBC (<https://www.cnn.com/2020/05/12/china-announces-new-tariff-waivers-for-some-us-imports.html>)
- 5 Trade Data Monitor monthly imports of 0203 and 0207
- 6 "China Halts Some U.S. Farm Imports, Threatening Trade Deal." Bloomberg News June 1, 2020 <https://www.bloomberg.com/news/articles/2020-06-01/china-halts-some-u-s-farm-imports-threatening-trade-deal>
- 7 Li, David K." (May 4, 2020) Tyson expects to keep slowing meat production as coronavirus sickens workers and tanks income" (NBC) (<https://www.nbcnews.com/news/us-news/tyson-expects-keep-slowing-meat-production-coronavirus-sickens-workers-tanks-n1199471>). The country's capacity to slaughter hogs has dropped by about 50 percent from pre-pandemic levels, according to Tyson President Dean Banks.
- 8 Maxner, E. (May 20, 2020) Pandemic leaves some chicken growers scratching for profits (AgiPulse) (<https://www.agri-pulse.com/articles/13669-poultry-sector-takes-a-covid-19-punch-charges-on>)  
The disruptions in the chicken sector aren't as widespread or deep as those in pork or beef, but about one-quarter of poultry plants have experienced noticeable disruptions due to coronavirus outbreaks, with some plants running 20% to 40% below normal, said Mark Jordan, a veteran poultry sector analyst who heads LEAP Market Analytics.

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