

Broiler Economics

By Dr. Paul Aho

FAST OR SLOW RETURN TO NORMAL?

A couple of months ago the outlook for the world economy was dire due to Covid-19. Now, the world economy has stabilized somewhat but the path forward is highly uncertain. Something approaching normal could return this year or normal could be delayed to next year or beyond.

The recovery from the coronavirus recession might be a "V" shaped one where the world economy recovers as fast as it slid into the recession or it could be "U" shaped or worse, the dreaded "L" shape. A lot will depend on the success of the fight against the virus.

The rapid descent into a world recession shook the stock markets and commodity markets. Prices for key raw materials such as oil, copper, iron ore, nickel, aluminum and liquid natural gas plummeted. The problems in the commodity market reflected the reality that the world economy was faltering. Now some prices are coming back, most notably oil, and there is hope that the crisis will be short lived.

Agriculture is well positioned to ride out this crisis however long it lasts. Within agriculture, chicken is well positioned despite the supply and demand disruptions faced this year. Supply disruptions occurred at the plants. Processing plants by their very nature must congregate hundreds of people who then run the risk of contracting the disease. The entire meat processing industry struggled to mitigate this problem. Production is now reported to be back to 95% for the meat industry in general.

On the demand side, food service was severely affected by the virus. It is estimated that 50% of the demand from food service disappeared overnight in March. Some of that demand is now starting to come back. Another demand problem is that of exports. A worldwide coronavirus recession creates a drag on the prospects for trade of all kinds including chicken meat.

Corn

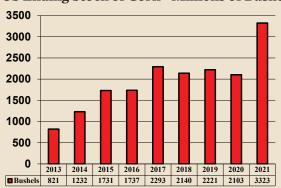
While the 2019 harvest of corn was not great, it was not a disaster either. The USDA now estimates that the final yield of corn was 167 bushels per acre last fall, down from 176 the year before. The ending inventory on August 31, 2020 will be only slightly lower than the ending inventory the year before and the price of corn will be similar during the current crop year compared to last crop year.

Looking forward to the next crop year, 2020-2021, it is expected that there will be a strong rebound in ending inventory by 2021 given more acres and a normal season. The price of corn would have fallen even absent coronavirus. With the pandemic, demand is unlikely to grow as much due to a tepid rise in corn exports, less corn use by livestock than earlier expected and, most importantly, a drop in demand by ethanol plants. The odds are favorable that chicken producers can expect falling corn prices in 2020 and in 2021.

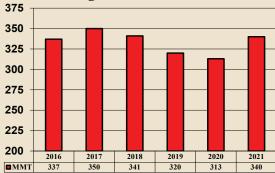
US Corn Supply and Demand – USDA to 2019-2020 WASDE June 2020 - Millions of Bushels

	2018-2019	2019-2020	2020-2021
Harvest	14,340	13,692	15,995
Supply Total	16,509	15,957	18,123
Ethanol	5,378	4,900	5,200
Exports	2,065	1,725	2,150
Feed	5,430	5,700	6,050
Total Use	14,288	13,780	14,800
Ending Inventory	2,221	2,103	3,323
Farm Price	\$3.61	\$3.60	\$3.20

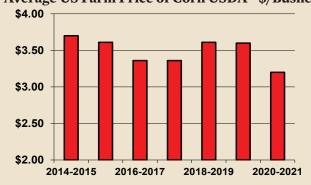
US Ending Stock of Corn - Millions of Bushels



World Ending Stock of Corn USDA - MMT



Average US Farm Price of Corn USDA - \$/Bushel



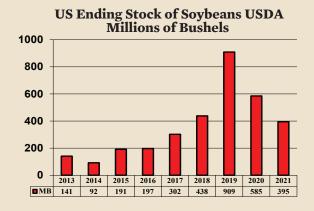
Soybeans

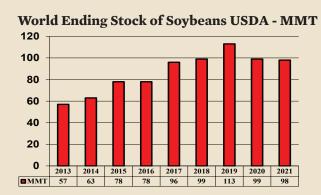
Like corn, soybean production was down this crop year and is likely to recover next crop year. However, unlike corn, soybeans prices may be going up instead of down.

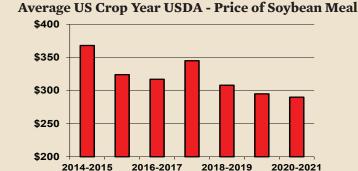
Bullish indicators include the fact that China agreed to purchase a lot more US soybeans. In addition to the strong export market, soybean meal is getting a boost from the lack of DDG's from ethanol plants. Finally, the shrinking ending inventory is usually a strong indication of rising prices. The June USDA projection shows a slight decline for next year. However, indications appear to point to an increase.

US Soybeans – USDA to 2019-2020 WASDE June 2020 - Millions of Bushels

	2018-2019	2019-2020	2020-2021
Harvest	4,428	3,552	4,125
Total Supply	4,880	4,476	4,725
Export	1,748	1,650	2,050
Total Use	3,971	3,891	4,330
Ending Stock Inventory	909	585	395
Meal Price short ton	\$308	\$295	\$290







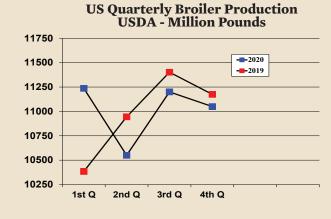
US Chicken Industry

The last few months witnessed a major upheaval in the US chicken industry. Food service demand plummeted while supermarket demand increased. Production dropped and is projected to rise again. Prices have been volatile.

The industry was caught flat-footed as unimaginable events changed the market overnight. Although chicken is wildly popular in supermarkets, the loss of so much food service demand meant that there is too much chicken supply chasing a smaller total market. Now the chicken market is moving back to something closer to "normal". However, the new normal may look different from the old normal. Food service sales may rebound to a level below that of the world before coronavirus for a considerable length of time.

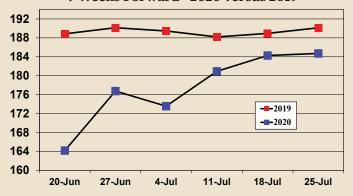
This year China opened their market to US chicken and China became a major market. Assuming politics allow exports to continue, the US is likely to export nearly a billion dollars of chicken each year to China. For the short term, sales to China do not completely overcome the decline in the demand elsewhere. The world is in a recession and the demand for meat is lower.

The USDA (June WASDE) now expects chicken production to be just about the same this year as last year. That is probably the right amount of chicken given current realities. As can be seen on the graph below, chicken production growth accelerated to 7% year over year during the 1st quarter of this year and is projected, by the USDA, to fall sharply in the second quarter. When all is said and done, production may well be just about the same as last year.



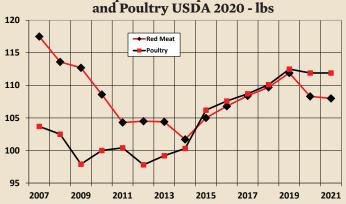
Although total production in 2020 will be about the same as 2019, first quarter production was a lot higher and second quarter production is a lot lower. Taking the chick placement numbers forward by 7 weeks, the graph below shows the sharp decrease in production is now occurring, 24 million fewer chickens processed in the week of June 20th.

Weekly Chick Placement - Millions 7 Weeks Forward - 2020 versus 2019



After a decline from 2007 to 2013 (the great recession) US consumption of both red meat and poultry rose steadily year after year until 2019. That year may well have been the top of the cycle at 224 pounds of total meat consumption per capita. This year, beef, pork and chicken consumption per capita will fall. Next year is exceedingly difficult to forecast but it is likely that pork and beef consumption will continue to fall while chicken consumption levels off.

US Per Capita Consumption of Red Meat and Poultry USDA 2020 - lbs



Per Capita Consumption in Pounds - US

Year	Pork	Beef	Chicken	Turkey	Total	
	Top of the Cycle					
2006	49	66	87	18	220	
Bottom of the Cycle						
2013	47	56	82	16	201	
Top of the Cycle?						
2019	52	58	95	16	224	
Bottom of the Cycle?						
2021?	50	56	94	16	219	

Deboned Breast

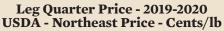
The price of deboned breast has been on a roller coaster this year. Prices rose during the supermarket hoarding phase, fell due to the fall off in food service, rose when some plants closed and then fell when the plants reopened. It would be safe to say that breast meat prices are likely to remain volatile this year.

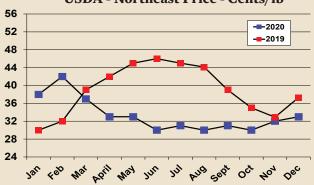
Deboned Breast - 2019-2020
USDA - Northeast Price - Cents/lb

140
130
120
110
100
90
80
70
Jan Mar May Jul Sept Nov

Leg Quarters

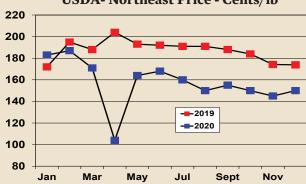
Leg quarter prices are highly dependent on the export market. The good news from China is being offset by the bad news from the rest of the world. Generally weakening economic prospects worldwide reduce the overall demand for meat. An important part of the export market are oil exporting countries. With lower oil prices those countries will be importing less meat.





<u>Wings</u> Nowhere was the collapse of food service demand more evident than in the wing market. High unemployment, falling wages, sports being cancelled, and restaurants and bars being closed created the perfect storm for wing prices. Surprisingly, wing prices bounced right back in May. Even economic calamity will not keep Americans from their beloved wings.

Whole Wing Prices - 2019-2020 USDA- Northeast Price - Cents/lb



At the beginning of this calendar year, the production of chicken in the US was slightly profitable. Then the industry suffered a period of losses. The most likely scenario for the rest of the year is that the economy manages to stabilize but is still weak while chicken companies adapt to the new reality and become profitable once again later this year.

February 2020

Leg Quarters	\$0.42 per pound
Deboned Breast	\$0.88 per pound
Wings	\$1.89
Chicago Corn	\$3.82 per bushel
Soybean Meal	\$291/Ton
Total Cost of Wholesale Chicken	\$0.74
Revenue	\$0.75
Gain (Loss) per pound	\$0.01

April 2020

Leg Quarters	\$0.31 per pound
Deboned Breast	\$0.86 per pound
Wings	\$0.87
Chicago Corn	\$3.32 per bushel
Soybean Meal	\$293/Ton
Total Cost of Wholesale Chicken	\$0.72
Revenue	\$0.60
Gain (Loss) per pound	\$(0.12)

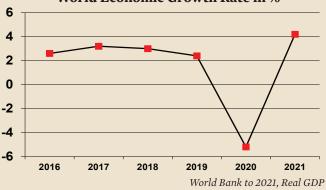
October 2020

Leg Quarters	\$0.33 per pound
Deboned Breast	\$1.10 per pound
Wings	\$1.40
Chicago Corn	\$3.00 per bushel
Soybean Meal	\$293/Ton
Total Cost of Wholesale Chicken	\$0.71
Revenue	\$0.72
Gain (Loss) per pound	\$0.01

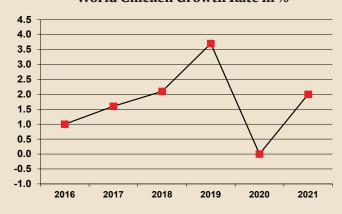
World and Chicken Growth Rate

World economic growth will take a dive in 2020. The World Bank this week projected a negative 5.2% growth rate for 2020. The Bank expects growth to return to a positive 4% in 2021. The declining world economy severely restricts the ability of the world chicken industry to grow even given the shortage of pork due to ASF.

World Economic Growth Rate in %



World Chicken Growth Rate in %



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Dr. Paul Aho is an international agribusiness economist specializing in projects related to the poultry industry and has been a prolific writer in trade journals in both the United States and in Latin America. Dr. Aho now operates his own consulting company called "Poultry Perspective". In this role, he works around the world with poultry managers and government policy makers.

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