

# BROILER ECONOMICS

By Dr. Paul Aho

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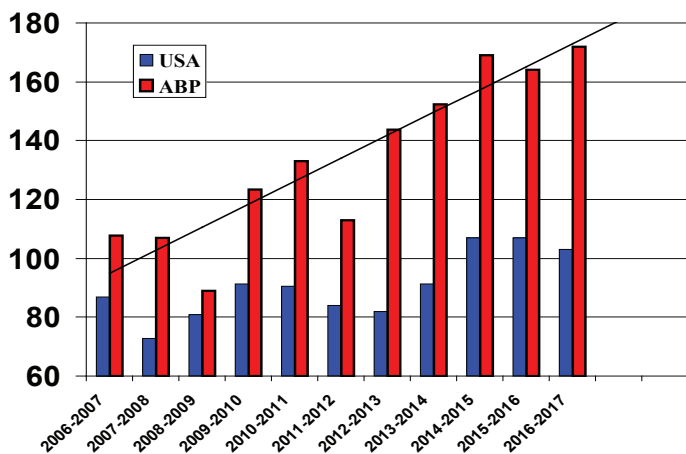
## THE IMPORTANCE OF SOUTH AMERICA

Just 10 years ago, the production of soybeans and corn in South America was significant but not determinant for world prices. Back then attention was usually focused on production in the US while South America was mostly ignored.

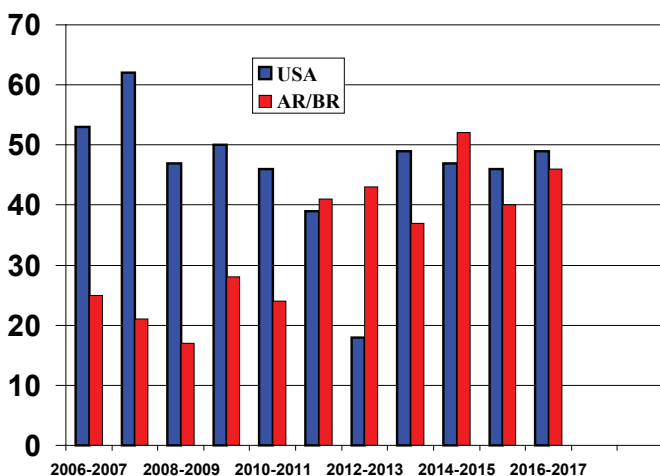
The tables have now turned. Ignoring South America is perilous. A good illustration of this occurred in April when the combination of flood in Argentina and drought in Brazil led to a sudden increase in the world price of corn and soybeans. Traders and pundits alike were caught by surprise and unable to act quickly. The effects were huge because South America is now gigantic in world production and trade.

As can be seen below, soybean production in the US was close to that of South America in 2006. Now the US is only two-thirds of South American production and falling. Corn exports were twice that of South America and are now just similar.

**Soybean Production US, Argentina, Brazil, & Paraguay - MMT**



**Corn Exports US, Brazil, Argentina - MMT**



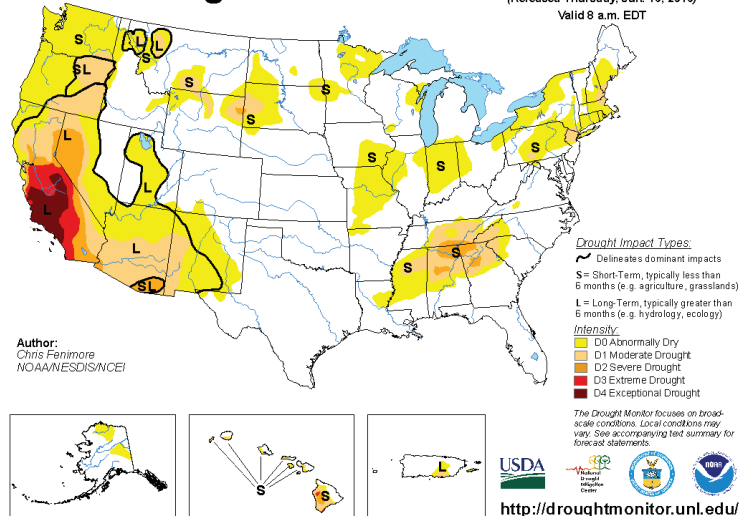
The bottom line is that understanding the weather, politics, and currency fluctuations of Brazil and Argentina are now key to understanding the world supply of corn and soybeans. Understanding the US Corn Belt, while still important, is now far from sufficient.

The June USDA World Agricultural Supply and Demand Estimates (WASDE report) showed that the supply of US corn this crop year is expected to be ample but lower than last crop year. Diminished supplies in the rest of the world suggest that corn prices will be rising as ending stocks decline.

The June Corn Supply and Demand Estimates in the table below do not take into account a sudden dry spell in the Midwest. Although it is too early to predict a drought, there are warning signs that the crop could be affected as can be seen on the latest US Drought monitor. For the first time this year, patches of drought are appearing in the Midwest. Should the corn crop be diminished, the ending stock in 2017 would be lower than in 2016 and the price would be higher than what is now predicted by the USDA.

## U.S. Drought Monitor

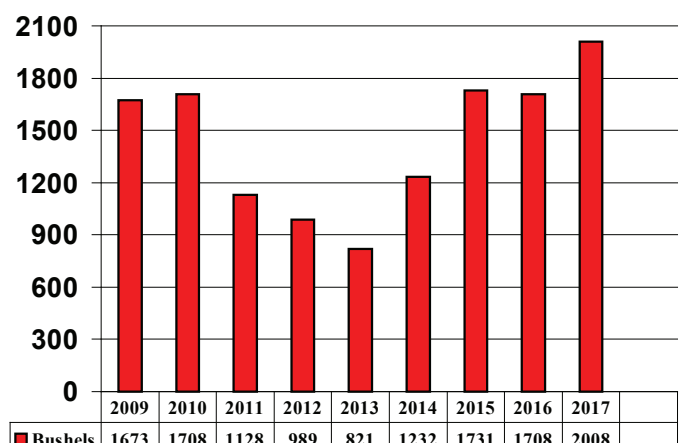
June 14, 2016  
(Released Thursday, Jun. 16, 2016)  
Valid 8 a.m. EDT



**US Corn Supply and Demand - June  
USDA Billions of Bushels**

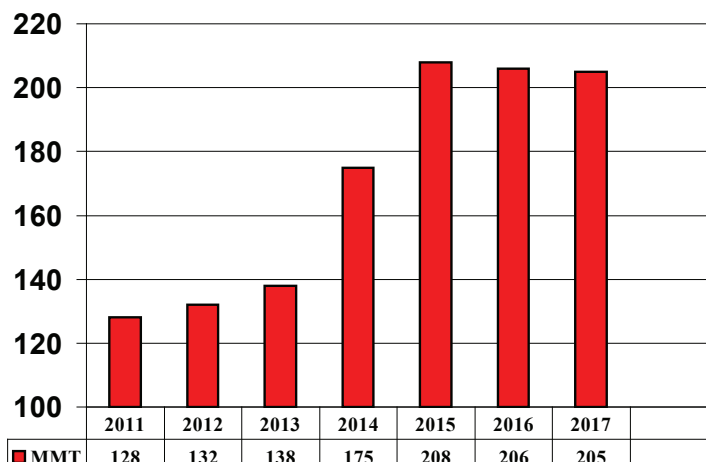
	2014-2015	2015-2016	2016-2017
Beginning Inventory	1.232	1.731	1.708
Harvest	14.216	13.601	14.430
Imports	0.032	0.060	.040
Supply Total	15.479	15.392	16.178
Ethanol	5.209	5.250	5.300
Exports	1.864	1.825	1.950
Feed	5.315	5.250	5.550
Total Use	13.748	13.685	14.000
End Inventory	1.731	1.708	2.008
Farm Price	\$3.70	\$3.70	\$3.60

**US Ending Stock of Corn - Millions of Bushels**



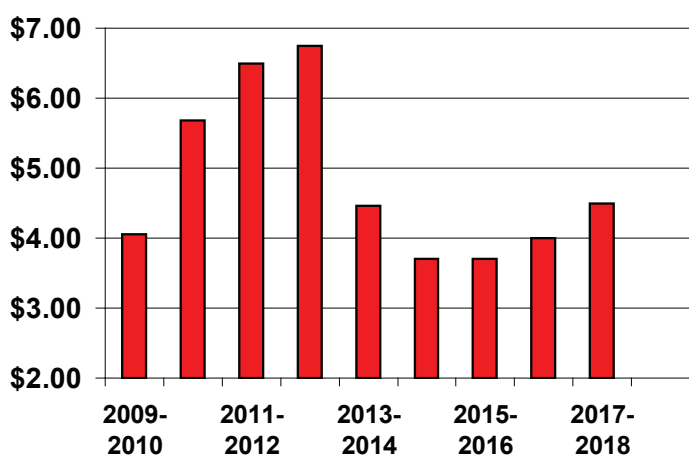
The June WASDE report estimates world ending stock in 2016 to be 206 million tons, down 2 million tons from 2015. An additional decline of 1 million tons is projected for 2017. This trend is, of course, worrisome to the users of grain.

**World Ending Stock of Corn - MMT**



With diminished supply outside the US and the possibility of a drought in the US prices are on the rise, changing the outlook of two months ago. The direction arrow is now upward for corn prices although the market may have gotten ahead of itself in recent weeks.

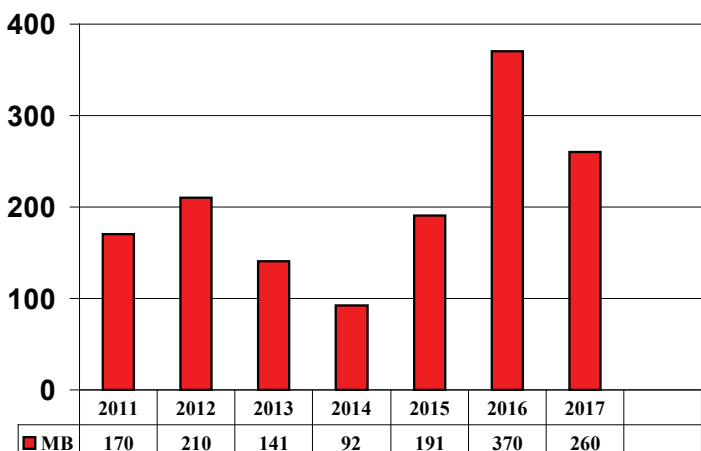
**Average Farm Price of Corn \$/Bushel to 2017-2018 (projected)**



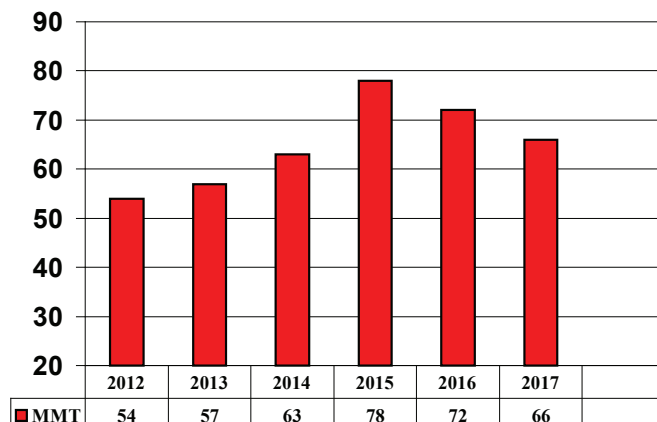
**Soybeans**

Like corn, soybeans reached their low point earlier this year and have soared upward recently. Unfortunately for those who use soybean meal, the supply and stock of soybeans will be less abundant than earlier expected and prices will be rising. Like corn, the direction arrow for prices is up but current prices may have gotten ahead of fundamentals.

**US Ending Stock of Soybeans in Millions of Bushels**



**World Ending Stock of Soybeans Millions of Metric Tons**

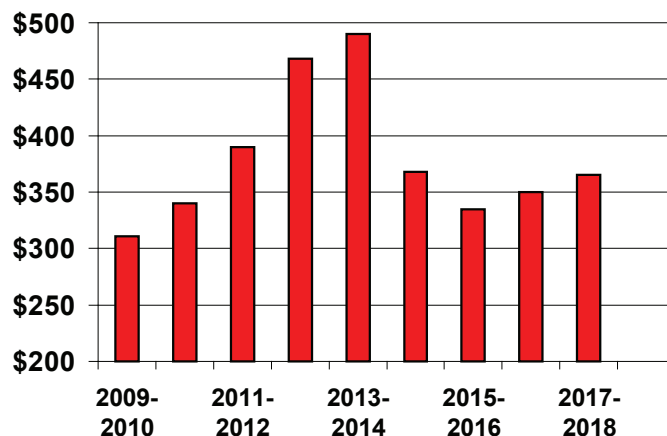


**US Soybeans – USDA June– Billions of Bushels**

	2014-2015	2015-2016	2016-2017
Harvest	3.927	3.929	3.800
Export	1.843	1.760	1.900
Total Use	3.861	3.780	3.940
Ending Inventory	191	370	260
Meal Price short ton	\$368	\$335	\$340

With soybean meal prices currently at \$408 per short ton, the market appears to be anticipating a drought. If the drought does not appear, prices are likely to fall back below \$400 per short ton. The USDA predicts \$335 per short ton (\$368 per metric ton) for this crop year (crop years run from September 1 to August 31) and \$340 for next crop year (\$374 per metric ton).

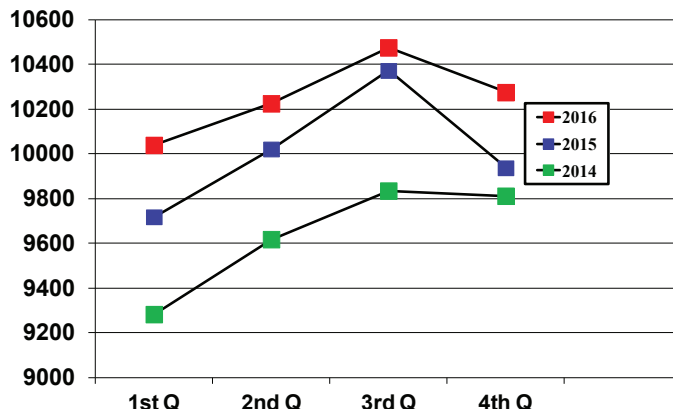
**Average Crop Year Price of Soybean Meal 2017-2018 (projected)**



**US Chicken Industry Production**

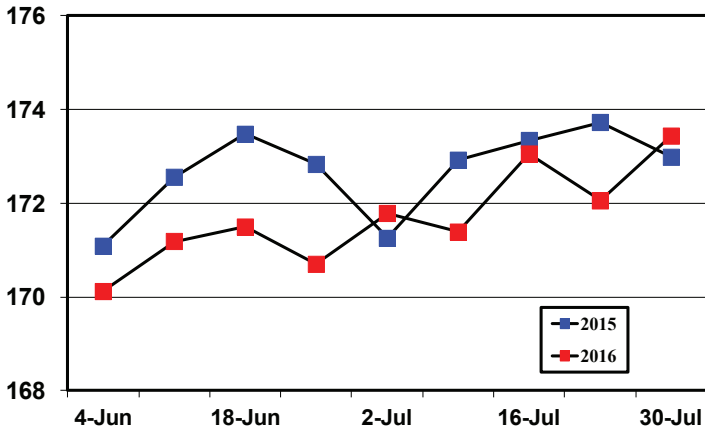
The total number of chickens processed this year is expected to rise 1%. Weights are also running 1% higher. Therefore, total production is likely to rise about 2%. This is in sharp contrast to last year when weights increased by 2% and numbers by 2% resulting in an unsustainable increase of 4%.

**US Quarterly Broiler Production Millions Pounds - USDA**



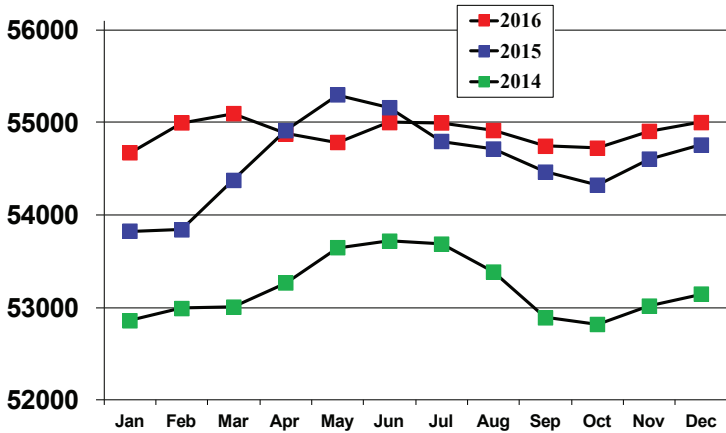
The graph below shows weekly chick placement in millions moved forward 7 weeks to estimate chickens processed. Using this method of estimation, processing numbers are, at the moment, higher than last year but will begin a period of similar production compared to last year in July.

**Weekly Chick Placement - Millions  
7 Weeks Forward - 2016 versus 2015**



As can be seen on the graph below, the increase in the supply of broiler breeders is also slowing down. After a big increase last year, numbers this year are similar to those of 2015. For the entire year breeder numbers appear to be heading for a 1% increase.

**Layers on Hand - Broiler Breeding Flock  
2014-2016 (projected)**

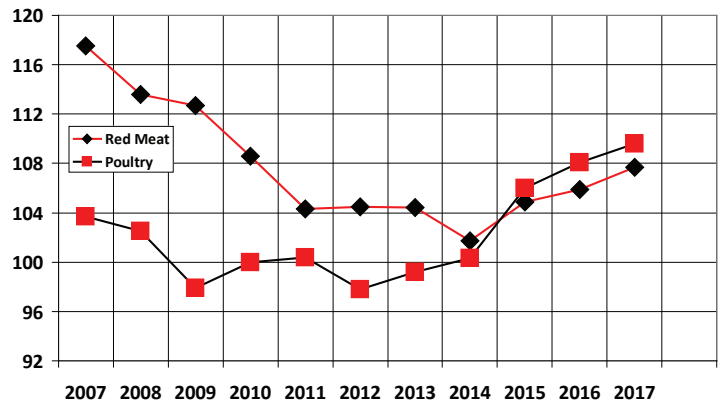


Chicken available within the US increased at an unusual and unsustainable rate last year due to increased production combined with a sudden drop in export quantity. Exports are increasing this year while production increases slow. As a result, chicken prices should therefore stabilize and even rise in the case of leg quarters in 2016. Recently higher grain prices lowered profitability but the industry is still profitable on average.

A large increase in chicken production this year would be unprofitable given the pressure of increased beef and pork availability. In 2015, there were 1.6 billion additional pounds of red meat available for domestic use. This year there are projected to be nearly one billion pounds. In all, total red meat consumption per capita will rise 5 pounds from 2014 to 2016. The per capita consumption of poultry jumped 6 pounds last year but is expected to rise just 2 pounds this year.

It is interesting to note that the total poultry consumption exceeded total red meat consumption in 2015 for the first time and that total meat consumption in 2016 is still not back to the level of 2006. Total meat consumption is closely correlated to median income. Median income in the US has also still not yet returned to the level of 2006 after the recession of 2008-2010.

**US Per Capita Consumption of  
Red Meat and Poultry (lbs)**



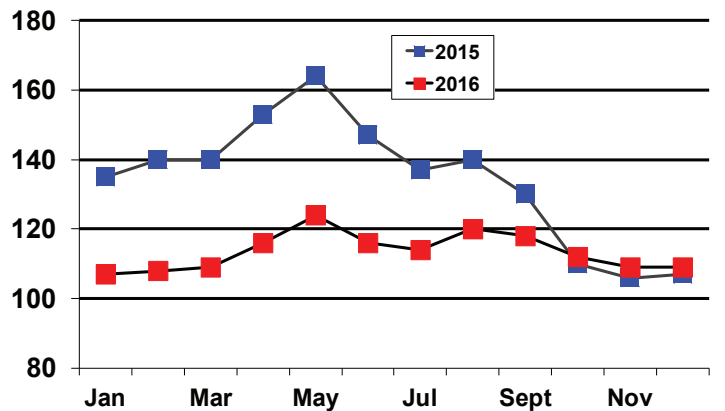
**Per Capita Consumption Per Capita in Pounds - US**

	Pork	Beef	Chicken	Turkey	Total
2006	49	66	87	18	220
2007	51	65	85	18	219
2008	49	63	83	18	213
2009	50	61	80	17	208
2010	48	60	82	16	206
2011	46	57	83	16	205
2012	46	57	80	16	202
2013	47	56	82	16	201
2014	46	54	83	16	202
2015	50	54	89	16	211
2016	50	55	90	17	214
2017	51	55	92	17	217

Deboned Breast

The highest prices for breast meat this year are lower than the highest prices in 2015. However, lower grain prices and higher leg quarter prices ensure continued profitability even at lower levels for this key price.

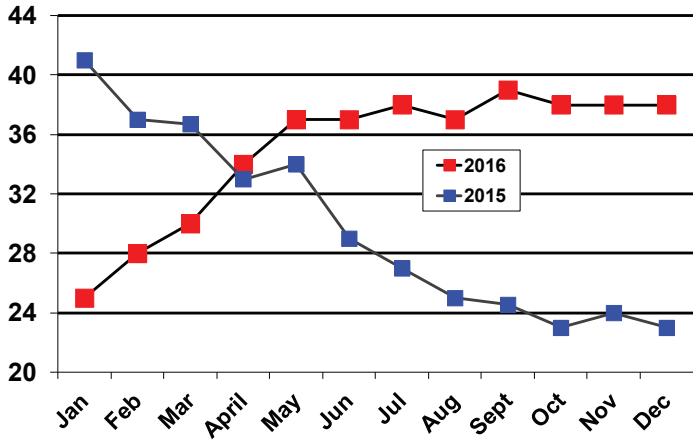
**Deboned Breast - 2015-2016  
USDA - Northeast Price - Cents/lb**



Leg Quarters

Leg quarter prices moved up this year. Bird flu export restrictions are being lifted and the export market is growing. Given current conditions, leg quarter prices could reach close to 40 cents per pound (Northeast Price) this year. There is a wide range in price for leg quarters with many leg quarters sold for a price much lower than the published Northeast price.

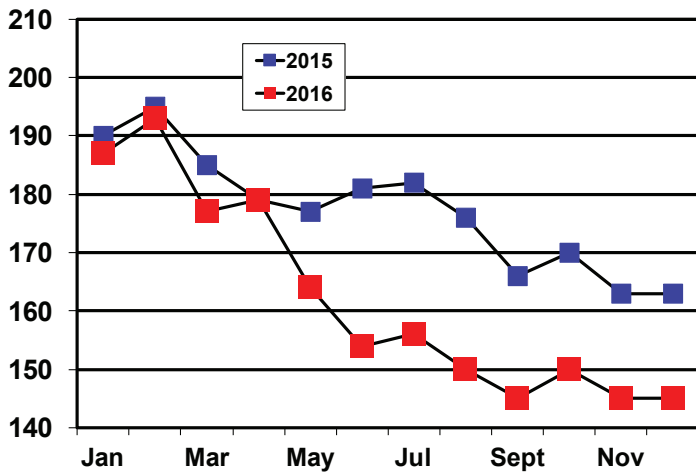
**Leg Quarter Price - 2015-2016**  
**USDA - Northeast Price - Cents/lb**



Wings

Wings were a bright spot for the chicken industry until recently with prices far above deboned breast. Since “boneless wings” can be made from breast meat, it was inevitable that wing prices would retreat from the \$2 per pound of earlier this year. Prices should hold above \$1.40 for the rest of this year.

**Whole Wing Price - 2015-2016**  
**USDA - Northeast Price - Cents/lb**



The US industry is now profitable and is likely to remain profitable this year due to lower grain prices than last year and higher leg quarter prices. However, profitability has diminished recently.

**June 2016**

Leg Quarters	\$0.37 per pound
Deboned Breast	\$1.16 per pound
Wings	\$1.54
Chicago Corn	\$4.37 per bushel
Soybean Meal	\$408/Ton
Total Cost of Eviscerated Chicken	\$0.77
Revenue	\$0.79
Gain (Loss) per pound	\$0.02

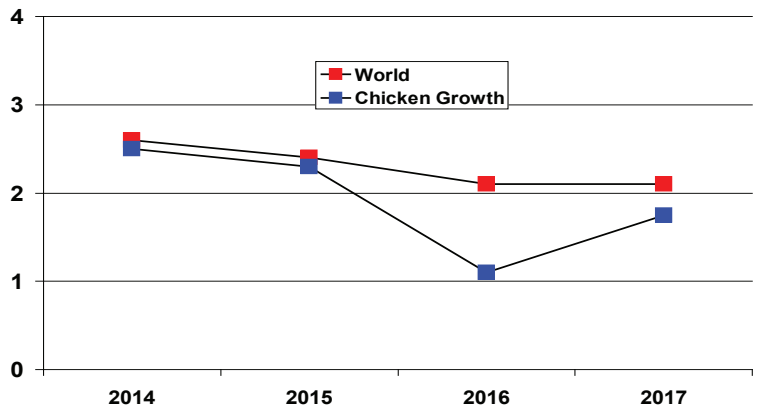
**December 2016**

Leg Quarters	\$0.37 per pound
Deboned Breast	\$1.10 per pound
Wings	\$1.45
Chicago Corn	\$4.00 per bushel
Soybean Meal	\$375/Ton
Total Cost of Eviscerated Chicken	\$0.75
Revenue	\$0.77
Gain (Loss) per pound	\$0.02

**World Chicken Growth Rate**

The growth rate of the world economy is slowing down although a global recession appears to be unlikely. The consequences of slower world economic growth and higher grain prices will drop the world chicken growth rate to only 1% this year. The chicken growth rate should recover to 2% by 2017 if a world recession is avoided.

**World Chicken Growth Rate & World Economic Growth Rate**



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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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