

Industry Update

Food and Agribusiness

Key Demand Developments

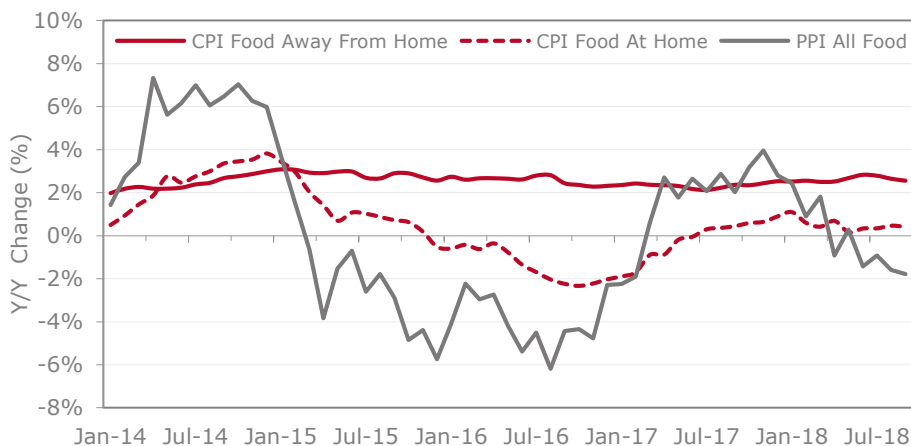


- Wells Fargo Securities has the inflation forecast as largely unchanged for 2019 and 2020. Rising labor and material costs will likely continue to generate additional inflation pressures throughout 2019. We expect inflation to soften slightly in 2020 as energy prices begin to moderate.
- Wells Fargo economists have updated the bank's forecast for Q4-2018 U.S. real GDP growth to 2.5%. Government spending will continue to provide a boost to growth, and the bank expects a rebound in business fixed investment in Q4. For personal consumption growth, the bank feels a cool down from the third quarter pace is imminent, but that personal consumption will remain supportive of overall GDP growth. Residential construction is likely to remain a weak spot moving forward.
- Wells Fargo economists have pared back expectations for global growth. Even with U.S. outperformance, growth continued to slow down in China and the Eurozone for Q3. A potential meeting at the G20 summit in late November between President Xi and President Trump will be key to the global trade outlook for growth.

Food Retail Sales

According to Nielsen, U.S. Food Retail sales growth increased in dollar volume by 1.3% Y/Y, while unit sales decreased 1.9% Y/Y. With overall value turning around since last month and unit sales decline decreasing, this begs the question of whether retail is beginning to find a strategic balance versus competition. Nielsen forecasts that fast-moving consumer goods (FMCG), including food, will continue to face growth headwinds through 2019 and 2020, notably for grocery, drug, and mass merchandise channels.

Consumer and Producer Price Indices



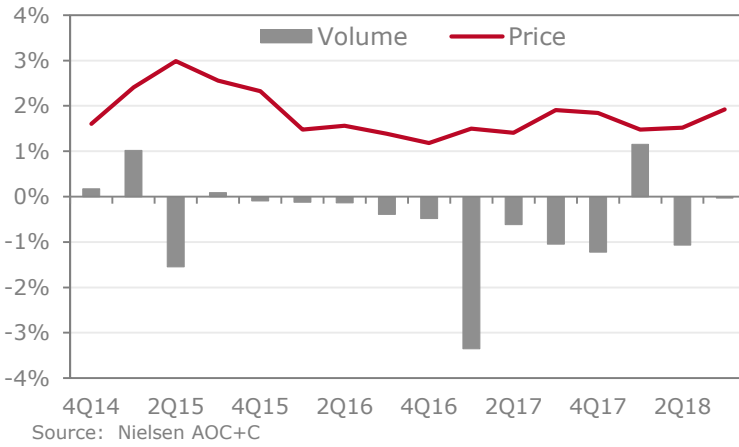
Source: U.S. Bureau of Labor Statistics

Price and Food Inflation Developments

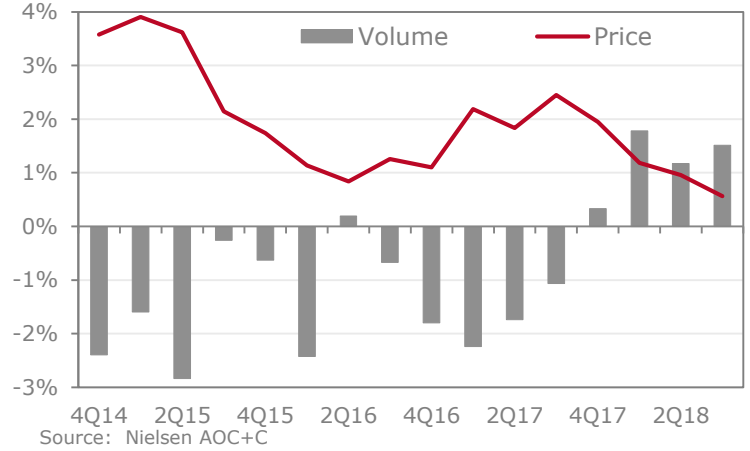
- The Producer Price Index (PPI All Food) declined by 1.8% Y/Y for Sept 2018. The spread between restaurant and food retail pricing is steady for both Y/Y and M/M for September 2018, yet remains higher than the Jan 2018 low. Over the 3-5 year period, these trends appear to be demonstrating less volatility in macroeconomic indicators as CPI and PPI are moving in a smaller channel.
- Restaurant pricing measured by the CPI Food Away from Home index (CPI-FAFH) grew 2.6% Y/Y in Sept 2018, which is outpacing the CPI Food At Home index with .3% growth Y/Y. Both of these measurements remain steady over the last several months.

Grocery Department Trends: Most departments showed Y/Y volume increases, with Deli and Fresh Produce continuing their strong runs. Bakery is down for the second consecutive month.

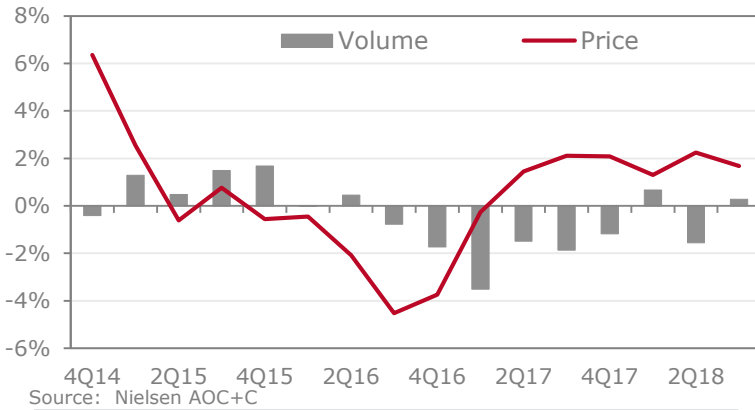
Dry Grocery



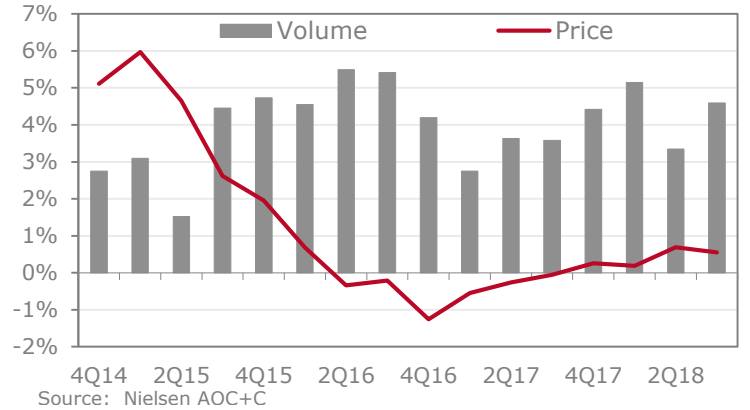
Frozen Foods



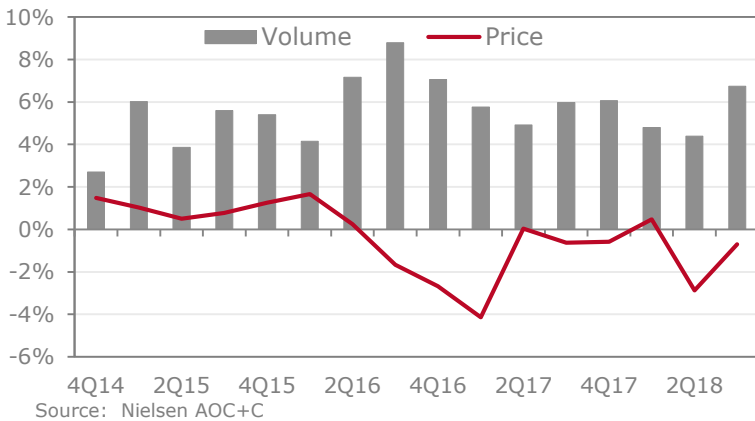
Dairy



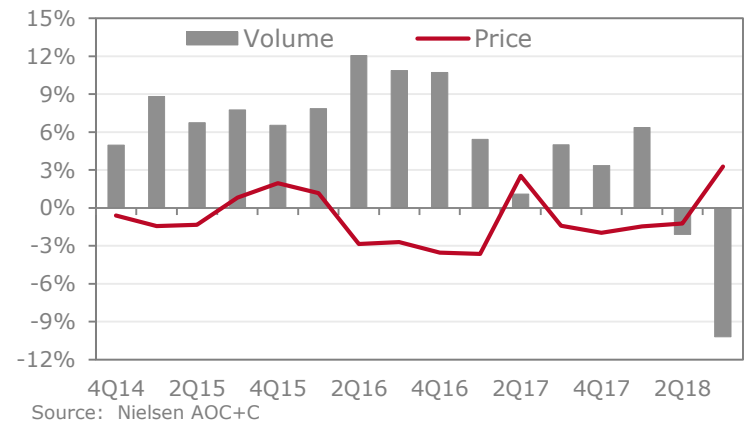
Deli



Fresh Produce



Bakery



- Dry Grocery 3Q'18 average unit price increased 1.9% Y/Y, while volume remained static at 0.0% Y/Y.
- Dairy 3Q'18 average unit price increases slowed slightly this quarter to 1.7% Y/Y, while volume picked up from the previous quarter decline to nearly static at 0.3% Y/Y.
- Fresh Produce 3Q'18 average unit price decreased 0.7% Y/Y, while volume increases lead all categories at 6.7% Y/Y.

- Frozen Food 3Q'18 average unit price increased 0.6% Y/Y, while volume increased to 1.5%. Frozen food volumes have increased each quarter of 2018, a reversal from the past several years.
- Deli 3Q'18 average unit price increased 0.5% Y/Y, while 3Q'18 volume increased 4.6% Y/Y.
- Bakery 3Q'18 average unit price posted the first 2018 quarterly increase of 3.3% Y/Y, while volume declines 10.2% Y/Y for the second consecutive quarterly decline after several years of growth.

Food Company Margin Heat Map Y/Y				
Price vs. Volume	Grain	Protein	Labor	Energy
Constructive	Mixed	Mixed	Inflationary	Mixed

Food Company Input Cost Summary: As we end 3Q'18, commodity prices have been volatile when compared to 3Q'17 levels as M/M prices generally are up across the board.

- **Economic Backdrop:** Wells Fargo's updated forecast for Q3-2018 U.S. real GDP growth is 3.3%, up from 3.1% in our last monthly report. Real personal consumption appears to be growing in excess of a 3% annualized rate, while federal, state and local government spending is likely to boost growth in the quarter.
- **Corn, Wheat & Soybeans:** Corn and wheat prices are above the past two years with U.S. and world stocks forecast to moderate in 2018/19 from large levels in 2017/18. Soybean prices remain low with the U.S. stocks/use ratio projected the highest in 33 years on a large crop and small exports to China.
- **Chicken:** Boneless, skinless breast prices dip down to 90 cents/lb., the lowest level in decades. Despite low grain prices lending support, gross margins continue to drop for producers.
- **Beef:** Demand remained strong in October, driven by export sales to Asia. Beef production in 2018 was revised lower by USDA on a slower than expected marketing pace for fed cattle in the fourth quarter.
- **Pork:** African Swine Fever continues to spread in China, creating uncertainty for global supplies into Q1. Lower prices helped keep September exports above last year's levels. Seasonally higher hog supplies are expected to pressure prices in the next couple of months.
- **Packer Margin Environment:** Pork, chicken and beef packer margins followed their seasonal patterns in October. Pork packers are gaining leverage against producers as plant capacity is tested. Chicken margins struggle with low product prices.
- **Seafood:** Prices continue to advance for both cod and pollock on forecasted lower quotas in 2019. The expected lower quota is overshadowing concerns about the U.S. 10% import tariff on product brought back into the U.S. after Chinese processing.
- **Dairy:** Cheese prices moved lower in October due to higher production. Dairy cow numbers are shrinking, but stronger milk per cow growth is offsetting any potential production declines.
- **Specialty and Non-Grain Crops:** U.S. spot sugar prices are up roughly 9% Y/Y. Continued significant price advances are unlikely.
- **Nuts:** California tree nut harvest is virtually complete with processing continuing through end of year. Pecan harvest has started in California and continues in Texas and the Southeast. Georgia harvest has been hampered by the effect of Hurricane Michael. The harvest has produced large crops of excellent quality, but smaller nut sizing is being noted.

Key Commodity Heat Map			
Commodity	Price*	Y/Y	M/M
Corn	\$3.68	+5.4%	+4.7%
HRW Wheat	\$5.14	+19.1%	+1.3%
Soybeans	\$8.60	-12.0%	+3.0%
Broilers	\$0.84	-1.5%	+0.5%
Cattle	\$1.13	+0.7%	+1.6%
Hogs	\$0.61	-1.4%	+7.0%
Class III Milk	\$15.53	-7.0%	-3.5%
Shrimp	\$4.00	-14.0%	-1.2%
Salmon	\$5.66	+6.0%	+0.5%
Natural Gas	\$8.93	+1.2%	+4.0%
Electricity	\$10.97	-0.2%	+1.4%
Heating Oil	\$3.23	+40.9%	+0.3%
Restaurant Labor	\$13.94	+3.8%	+0.4%
Supermarket Labor	\$13.45	+3.0%	+0.4%
Food Labor	\$17.38	+3.9%	+0.3%

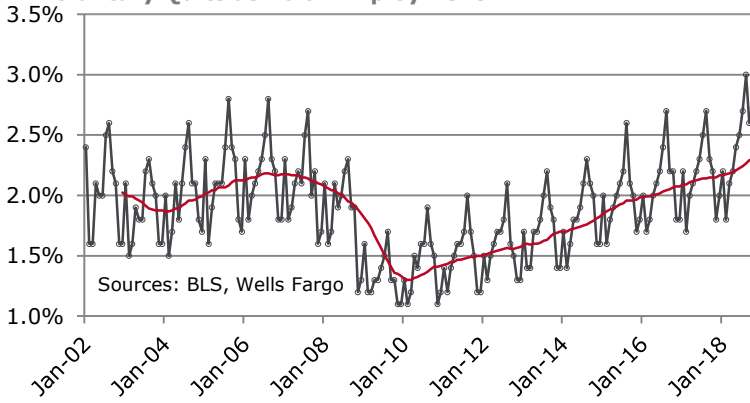
*All prices for October except natural gas (July), Electricity (July), heating oil (August) and supermarket labor (September)

Monthly avg. corn, wheat, soybeans in \$/bu; broilers, shrimp in \$/lb; cattle, hogs, milk in \$/cwt; salmon in \$/kg; gas in \$/Mct; oil in \$/gal; electricity in \$/kWh; labor in \$/h
Sources: CBOT, USDA, Urner Barry, EIA, BLS

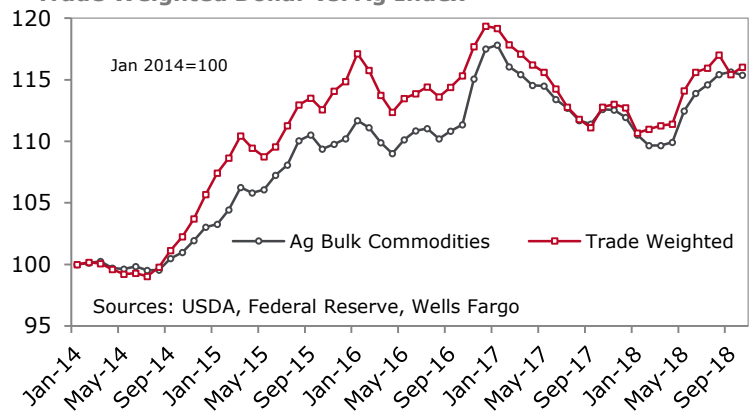
- **Wine:** Harvest is wrapping up in California, Oregon and Washington with all areas reporting a large crop of good quality. Expectations are in line with an approximate harvest in the 4MM ton range for California. Bulk wine is available for purchase depending on variety, quality and location. Industry is looking at the possible effect of smoke taint in areas that experience wildfires, and competition with legalized cannabis consumption.
- **Fruit Crops:** Table grape harvest will be winding down, although fruit will continue to be sold out of cold storage. Apple harvest is complete, with the U.S. crop down ~3MM boxes Y/Y. Fruits on store shelves are transitioning to imported product, and citrus growers are preparing to get harvest crews in the orchards.
- **Vegetable Crops:** Processing tomato harvest has wrapped up, with an estimated 12.2MM tons delivered in CA. Cucumbers, peppers, and tomatoes continue to be harvested in Tulare County, with harvest expected to begin in FL soon. Lettuce harvest is winding down in CA and moving to Arizona/Imperial Valley. Sweet potato and sweet corn prices have increased materially after weather issues in North Carolina.
- **Forest Products:** Lumber and structural panel prices fell sharply in October to the lowest level in more than a year.
- **Crop Inputs:** Ammonia prices are the highest in 2½ years while urea, DAP and potash prices are the highest in 3 years.
- **Energy and Labor:** The Energy Information Administration estimates that U.S. crude oil production averaged 11.4MM barrels per day in October, down from September levels because of hurricane-related outages in the Gulf of Mexico.

Economics: Wells Fargo's updated forecast for Q3-2018 U.S. real GDP growth is 3.3%, up from 3.1% in our last monthly. Real personal consumption appears to be growing in excess of a 3% annualized rate, while both federal, state and local government spending is likely to boost growth in the quarter.

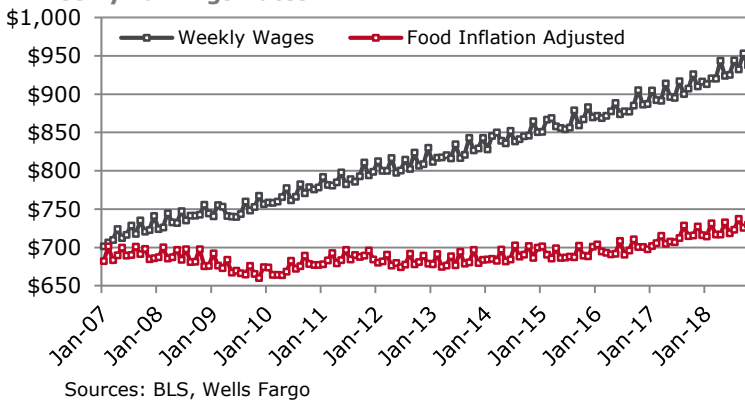
Voluntary Quits as % of Employment



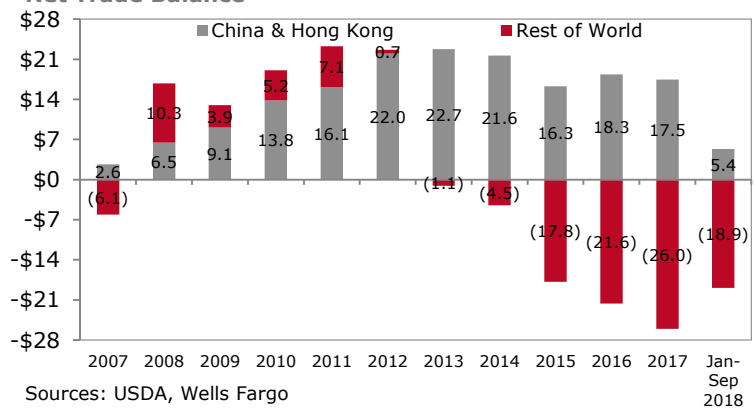
Trade Weighted Dollar vs. Ag Index



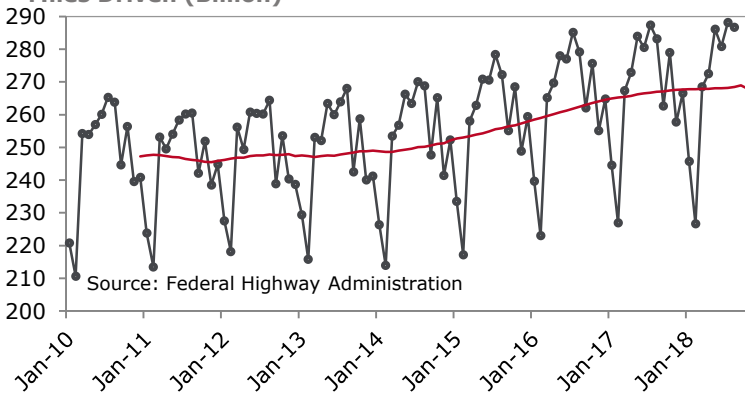
Weekly Earnings Rates



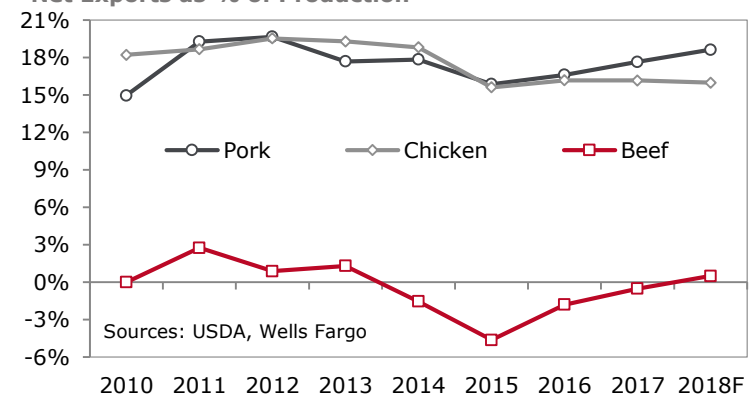
Net Trade Balance



Miles Driven (Billion)



Net Exports as % of Production

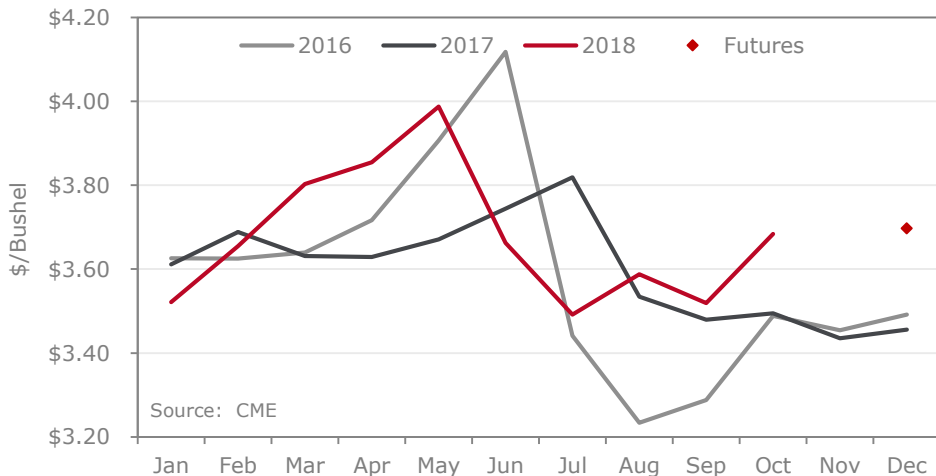


- September 2018 voluntary quits as a percentage of employment of 2.6% decreased from 2.9% M/M due to continued strong employment demand.
- October 2018 weekly average earnings are growing 1.2% Y/Y on a nominal basis. When deflated by food and beverage CPI the July 2018 average wage of \$751/week increased 3.9% Y/Y driven primarily by continued labor shortages.
- August 2018 miles driven of 287 billion were up 1.2% Y/Y as stronger employment offset higher gas prices.

- The October 2018 trade weighted dollar index value of 116.03 vs. bulk commodity dollar index value of 115.37 widened slightly when compared to the September 2018 values of 115.43 and 115.65, respectively.
- The net trade balance for YTD September 2018 of (\$13.6) billion widened by approximately \$1.3 billion compared to the (\$12.3) billion trade balance for last month.

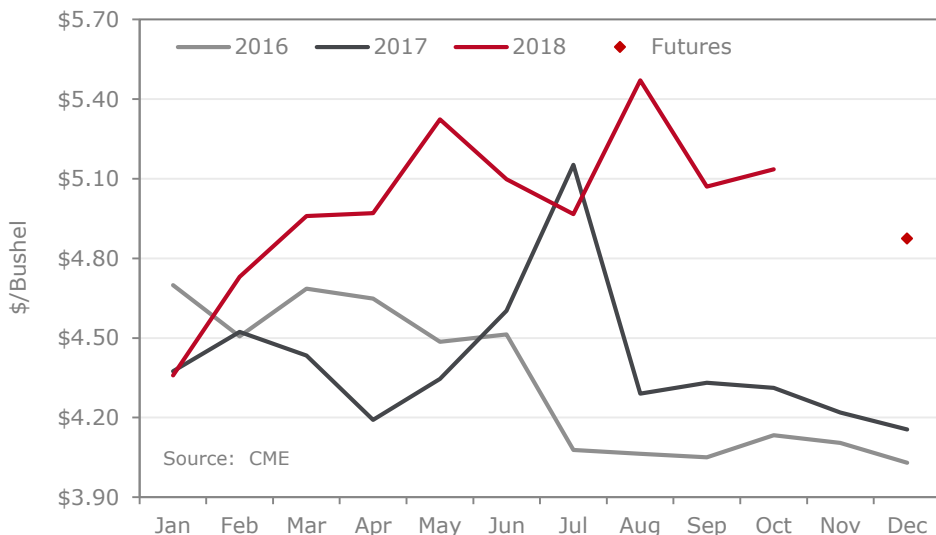
Grain Prices: Corn and wheat prices are above the past two years with U.S. and world stocks forecast to decline in 2018/19. Soybean prices remain low with U.S. stocks/use projected the highest in 33 years.

Corn



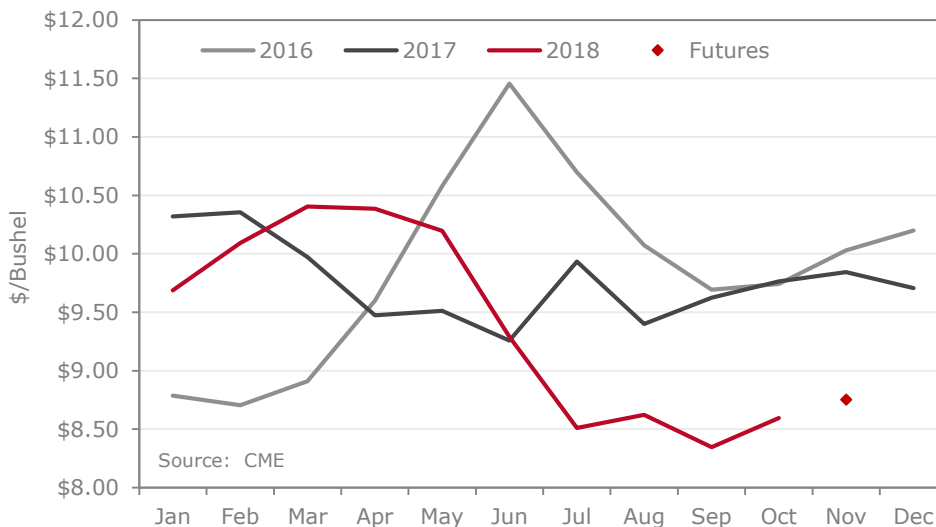
- Nearby corn futures averaged \$3.68 per bushel in October, up 17 cents from September and up 19 cents Y/Y.
- Prices were supported by the USMCA agreement and USDA's smaller-than expected U.S. production and ending stocks forecasts released October 11.
- USDA's world corn production and stocks estimates were raised sharply in November on adoption of higher China production estimates back to 2007. For 2018/19, USDA now forecasts world corn production up 2% from 2017/18 and world stocks down 10% to the lowest level in four years.

Wheat



- Nearby Kansas City wheat futures averaged \$5.14 per bushel in October. This was up 7 cents from September and up 82 cents from a year earlier.
- Support came from slow planting of winter wheat amid wet conditions, but gains were limited by a stronger U.S. dollar and limited improvement in export sales. The market received some positive news late in the month as Egypt bought a cargo U.S. wheat for the first time in about 18 months.
- USDA projects global wheat production down 4% in 2018/19 on large declines in Russia, the EU and Australia. Global stocks are forecast to fall 4% after rising five straight years to a record.

Soybeans



- Nearby soybean futures averaged \$8.60 in October, which was up 25 cents from September but down \$1.17 from October 2017.
- Support came from wet weather in the Midwest, which slowed harvest and brought concern about yields. Gains were limited by export sales and shipments that remain well below recent years due to China's high tariff.
- USDA projects world soybean production up 9% in 2018/19 on this year's larger U.S. crop and an assumed rebound in Argentina's crop in 2019. World stocks are projected to jump 12% to a record level.

Grain Fundamentals: U.S. corn and wheat stocks are forecast to moderate in 2018/19 from large levels in 2017/18. U.S. soybean stocks are forecast to increase sharply on a large crop and small exports to China.

Corn

	2016/17	2017/18	2018/19F	2018/19F	M/M Change	Y/Y Change
			October	November	18/19 Forecast	18/19 Forecast
Acres Planted (mm)	94.0	90.2	89.1	89.1	0.0	-1.1
Acres Harvested	86.7	82.7	81.8	81.8	0.0	-0.9
Yield per Harvested Acre (bu)	174.6	176.6	180.7	178.9	-1.8	2.3
Beginning Stocks (mm bu)	1,737	2,293	2,140	2,140	0	-153
Production	15,148	14,604	14,778	14,626	-152	22
Imports	57	36	50	50	0	14
Total Supply	16,942	16,934	16,968	16,816	-152	-118
Feed and Residual	5,470	5,302	5,550	5,500	-50	198
Food, Seed & Industrial	6,885	7,054	7,130	7,130	0	76
Ethanol	5,432	5,601	5,650	5,650	0	49
Total Domestic	12,355	12,355	12,680	12,630	-50	275
Exports	2,294	2,438	2,475	2,450	-25	12
Total Use	14,649	14,793	15,155	15,080	-75	287
Ending Stocks	2,293	2,140	1,813	1,736	-77	-404
Stocks to Use (%)	15.7%	14.5%	12.0%	11.5%	-0.5%	-3.0%
Average Farm Price (\$/bu)	\$3.36	\$3.36	\$3.50	\$3.60	\$0.10	\$0.24

Source: USDA WASDE

Wheat

	2016/17	2017/18	2018/19F	2018/19F	M/M Change	Y/Y Change
			October	November	18/19 Forecast	18/19 Forecast
Acres Planted (mm)	50.1	46.0	47.8	47.8	0.0	1.8
Acres Harvested	43.9	37.5	39.6	39.6	0.0	2.1
Yield per Harvested Acre (bu)	52.7	46.3	47.6	47.6	0.0	1.3
Beginning Stocks (mm bu)	976	1,181	1,099	1,099	0	-82
Production	2,309	1,740	1,884	1,884	0	144
Imports	118	157	140	140	0	-17
Total Supply	3,402	3,078	3,123	3,123	0	45
Food	949	964	970	970	0	6
Seed	61	63	62	69	7	6
Feed and Residual	161	50	110	110	0	60
Total Domestic	1,171	1,078	1,142	1,149	7	71
Exports	1,051	901	1,025	1,025	0	124
Total Use	2,222	1,979	2,167	2,174	7	195
Ending Stocks	1,181	1,099	956	949	-7	-150
Stocks to Use (%)	53.2%	55.5%	44.1%	43.7%	-0.5%	-11.9%
Average Farm Price (\$/bu)	\$3.89	\$4.72	\$5.10	\$5.10	\$0.00	\$0.38

Source: USDA WASDE

Soybeans

	2016/17	2017/18	2018/19F	2018/19F	M/M Change	Y/Y Change
			October	November	18/19 Forecast	18/19 Forecast
Acres Planted (mm)	83.4	90.1	89.1	89.1	0.0	-1.0
Acres Harvested	82.7	89.5	88.3	88.3	0.0	-1.2
Yield per Harvested Acre (bu)	52.0	49.3	53.1	52.1	-1.0	2.8
Beginning Stocks (mm bu)	197	302	438	438	0	136
Production	4,296	4,411	4,690	4,600	-90	189
Imports	22	22	25	25	0	3
Total Supply	4,515	4,734	5,153	5,063	-90	329
Crushings	1,899	2,055	2,070	2,080	10	25
Exports	2,174	2,129	2,060	1,900	-160	-229
Seed	105	104	103	96	-7	-8
Residual	35	8	34	32	-2	24
Total Use	4,213	4,296	4,268	4,107	-161	-189
Ending Stocks	302	438	885	955	70	517
Stocks to Use (%)	7.2%	10.2%	20.7%	23.3%	2.5%	13.1%
Average Farm Price (\$/bu)	\$9.47	\$9.33	\$8.60	\$8.60	\$0.00	-\$0.73

Source: USDA WASDE

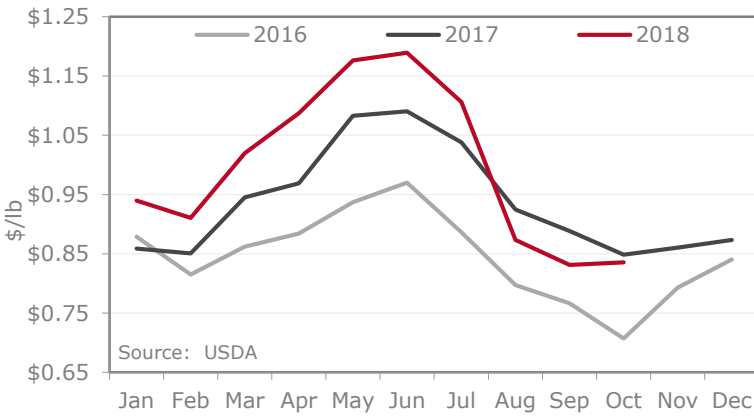
- USDA cut its U.S. corn crop estimate 152 million bushels in November on a reduction in yield to 178.9 bushels, which still would be a record.
- Projected ending stocks were lowered 77 million bushels with the smaller crop partly offset by usage cuts. Feed and residual usage was lowered 50 million bushels due to the smaller crop and a higher price outlook, while exports were lowered 25 million on larger Ukrainian production and exports. The implied stocks-to-use ratio of 11.5% would be below the past four years.
- USDA's long-term projections released in early November included 2019 corn planted acres of 92 million, up 3% Y/Y.

- USDA raised its forecast of 2018/19 seed usage of U.S. wheat by 7 million bushels in November. This trimmed its ending stocks projection to 949 million bushels.
- USDA's export forecast of 1,025 million bushels could be too high if export sales do not significantly improve soon.
- USDA's long-term projections included 2019/20 wheat plantings of 51.0 million acres, which would be up 7% Y/Y. However, wet conditions this fall have hindered winter wheat planting progress and could limit the increase in acreage.

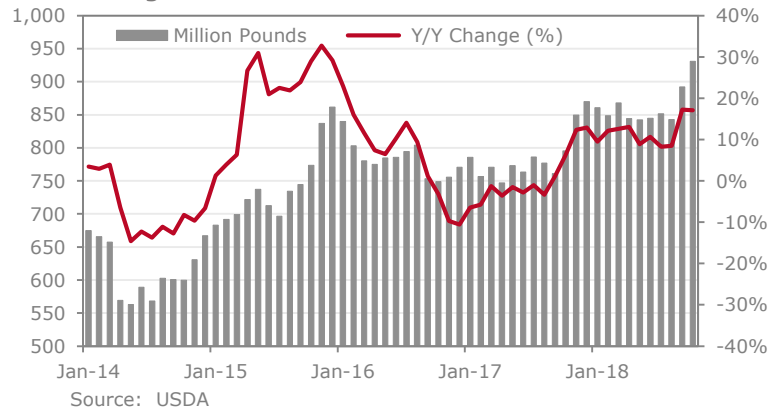
- USDA cut its U.S. soybean yield estimate 1.0 bushel per acre to 52.1 bushels, which reduced its production estimate by 90 million bushels.
- The smaller crop and a 10-million-bushel increase in crush were more than offset by cuts in the other usage categories. Exports were slashed 160 million bushels as business to China remains minimal due to the high tariff. USDA's carryout forecast increased 70 million bushels to 955 million, reflecting the largest stocks-to-use ratio in 33 years.
- USDA's long-term projections included 2019 soybean plantings of 82.5 million acres, which would be down 7% Y/Y.

Chicken: Boneless, skinless breast prices dip down to 90 cents/lb., the lowest level in decades. Despite low grain prices lending support, gross margins continue to drop for producers.

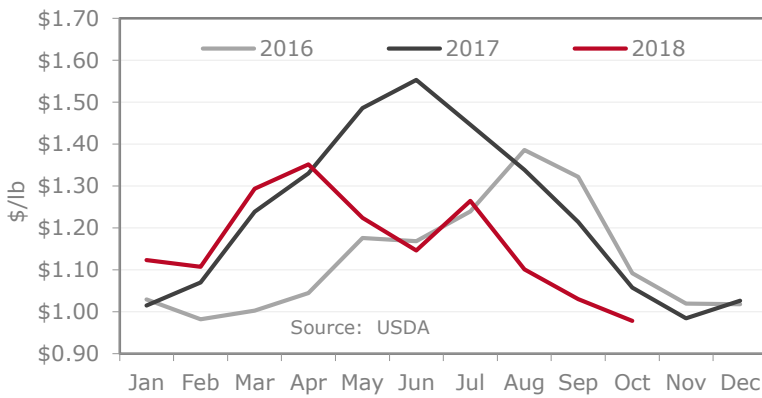
Whole Broiler Prices



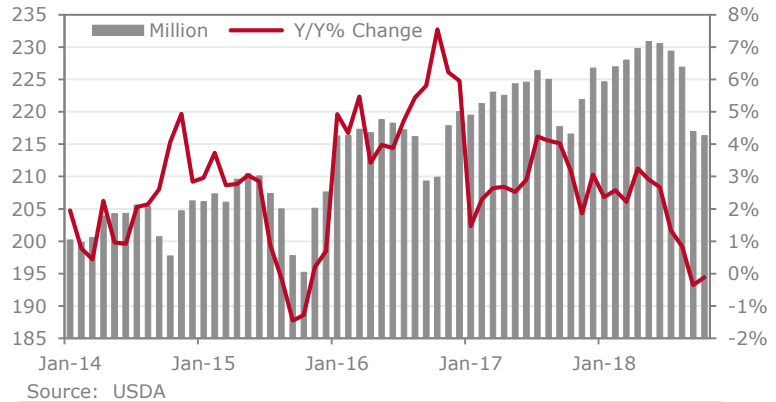
Cold Storage Inventories



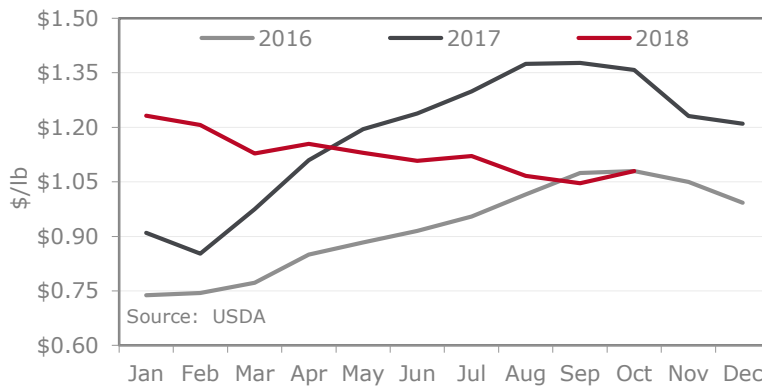
Boneless Skinless Breast Prices



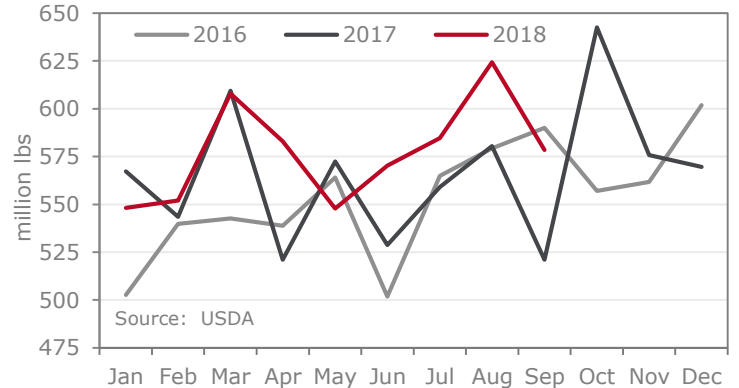
Egg Sets



Boneless Skinless Thigh Prices



Broiler Exports

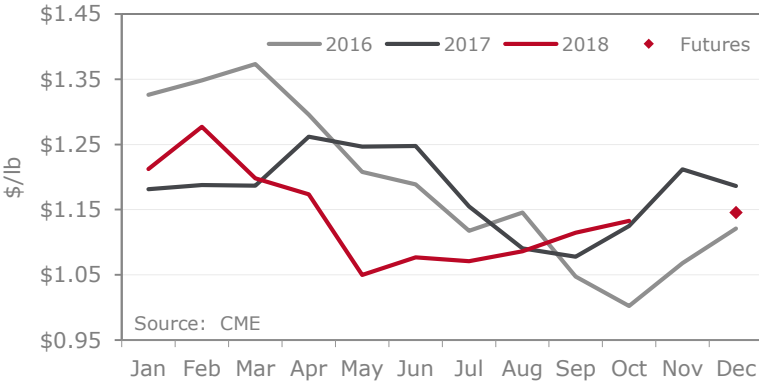


- The October USDA broiler price of \$0.83/lb. is unchanged vs. the prior month and decreased 2% vs. October 2017. Broiler prices appear to be stabilizing after falling for three consecutive months.
- The October average breast price of \$0.97/lb. decreased 5% vs. the prior month and decreased 7% vs. October 2017.
- The October average thigh price of \$1.07/lb. increased 3% vs. the prior month and decreased 20% vs. October 2017.

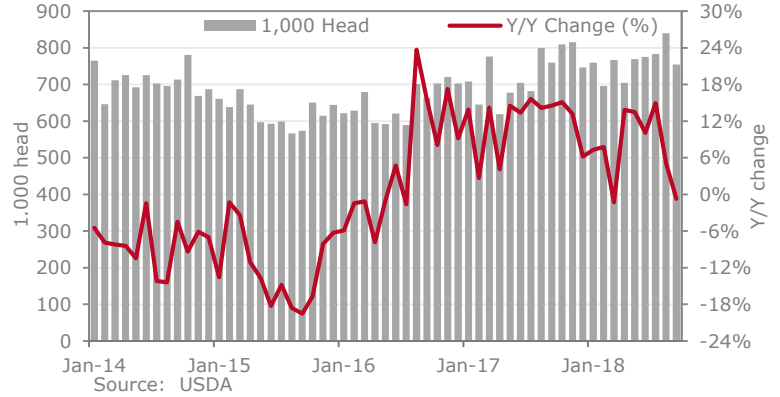
- Broiler product prices are depressed as large production and low prices in pork and turkey pressure broiler prices lower in order to compete.
- The recent WASDE report slightly increased production estimates for 2018 on higher slaughter in the third quarter. Production in 2018 is estimated to increase 2.4% Y/Y and 2019 is estimated to increase 1.7% Y/Y.
- Broiler exports in September slowed from the previous month on seasonality, but had impressive Y/Y growth at 11%. Due to diverse trade partners, retaliatory tariffs have caused limited impact to exports.

Beef: Demand remained strong in October, driven by export sales to Asia. Beef production in 2018 was revised lower by USDA on a slower than expected marketing pace for fed cattle in the fourth quarter.

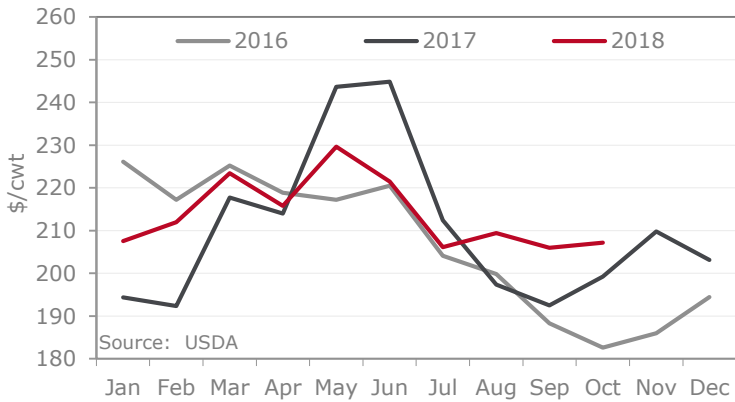
Live Cattle Prices



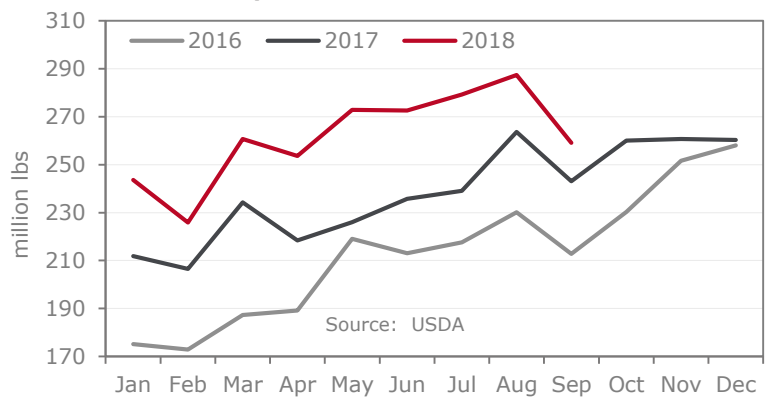
Heifer Slaughter



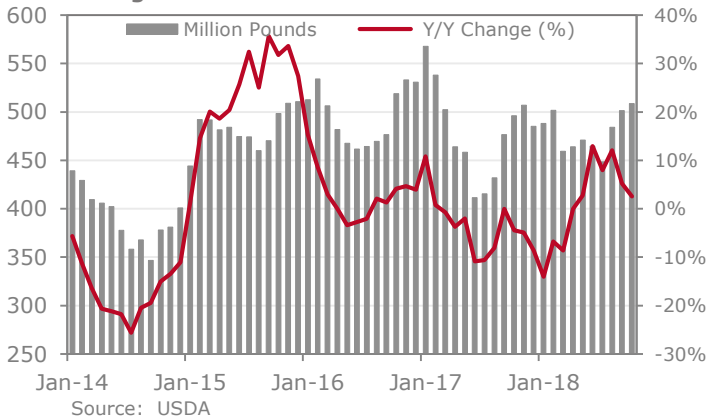
Cut Out Values



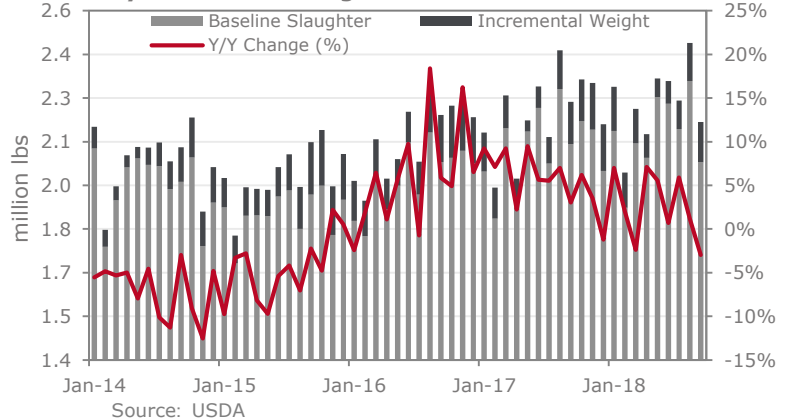
Beef and Veal Exports



Cold Storage Inventories



Monthly Cattle Processing

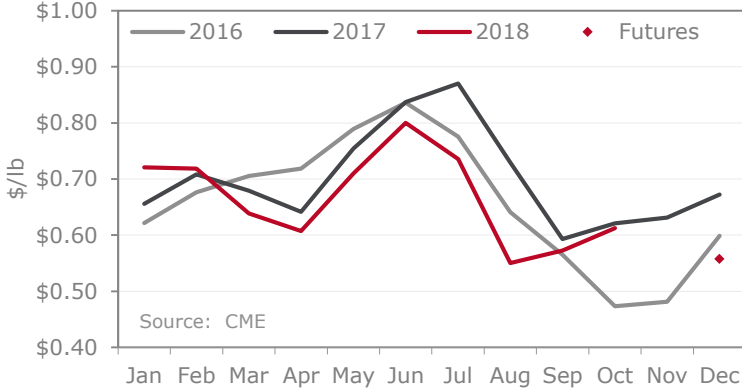


- The October average beef cutout value increased 1% vs. the prior month and increased 4% from September 2018. Strong export demand helped support higher prices.
- The recent WASDE report again lowered production estimates in 2018 and 2019 on reduced slaughter expectations for late 2018/early 2019. 2018 production is estimated up 2.8% Y/Y and 2019 production is estimated up 3.3% Y/Y.

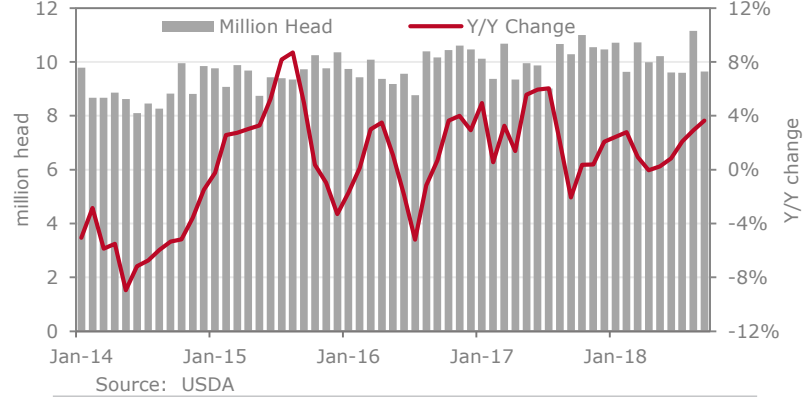
- September beef export volume decreased 10% vs. the prior month and was up 7% from September 2017. Exports remained robust, but at a slower pace than previous months.
- The October cattle on feed report surprised industry analysts with less cattle placed in September than expected. This was friendly to the market as the cattle supply will be lower in late winter/early spring.
- September beef import volume increased 3.8% Y/Y on higher grinding beef imports from Central America.

Pork: African Swine Fever continues to spread in China, creating uncertainty for global supplies into Q1. Lower prices helped keep September exports above last year's levels. Seasonally higher hog supplies are expected to pressure prices in the next couple of months.

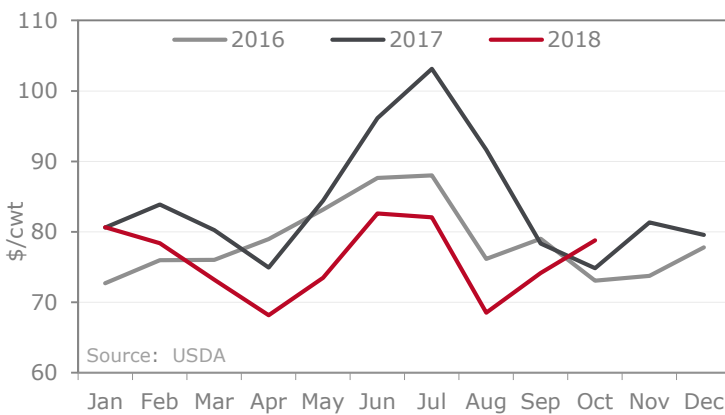
Lean Hog Prices



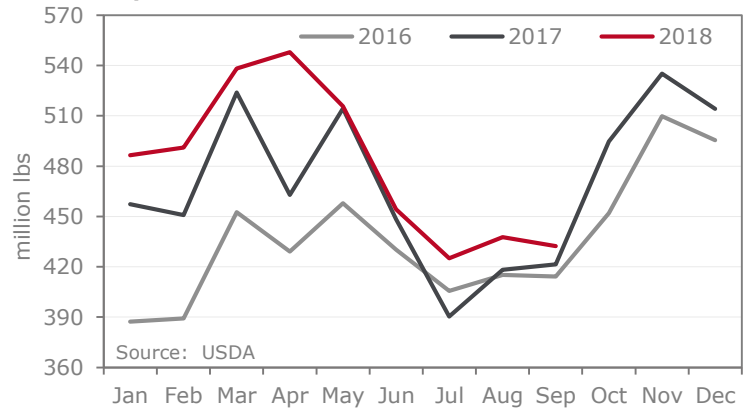
Sow Slaughter



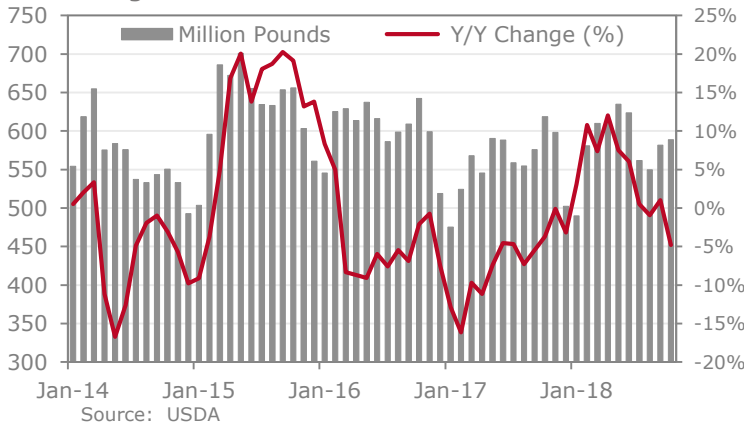
Cut Out Values



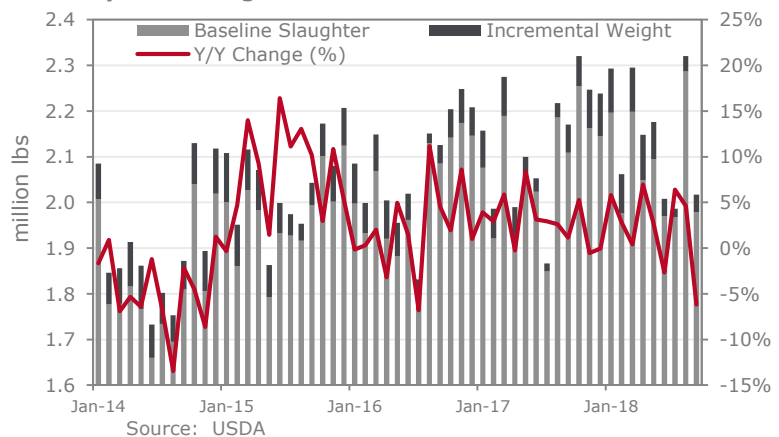
Pork Exports



Cold Storage Inventories



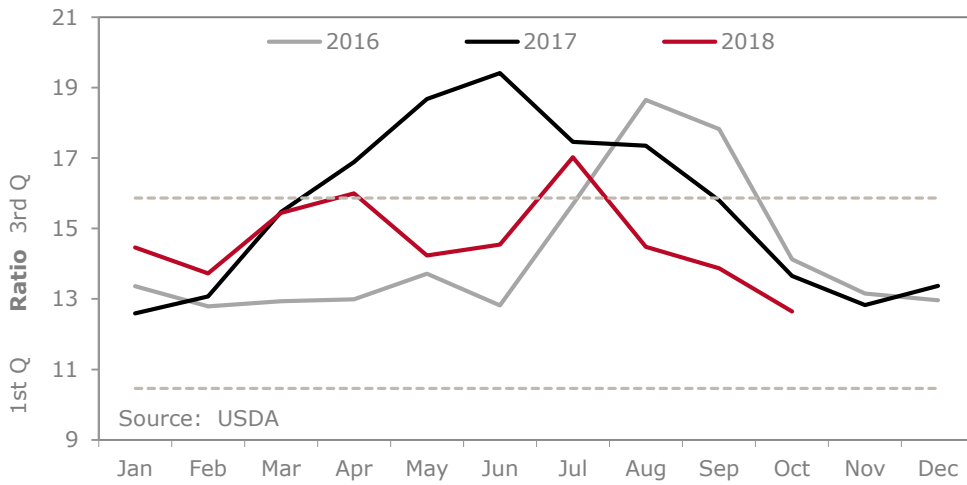
Monthly Processing



- Nearby lean hog futures averaged \$0.61/lb. in October. This increased 7% from September, and decreased 1% Y/Y.
- The average cut-out value increased 6% in October, and was up 5% Y/Y. Supply disruptions from Hurricane Michael gave support to cut-out prices.
- The recent WASDE report lowered production estimates in 2018 and 2019 on reduced slaughter expectations and lower carcass weights. 2018 production is estimated at 2.9% Y/Y and 2019 production is estimated at 5.3% Y/Y.
- Pork exports in September were 3% higher Y/Y, but have slowed from their robust pace in the first half of the year. Although volume was higher, the dollar value was 3.5% lower Y/Y, indicating that cheaper product was needed to attract buyers.
- Hog slaughter traditionally hits its seasonal highs in Q4. Record hog production in 2018 is challenging packer slaughter capacity.

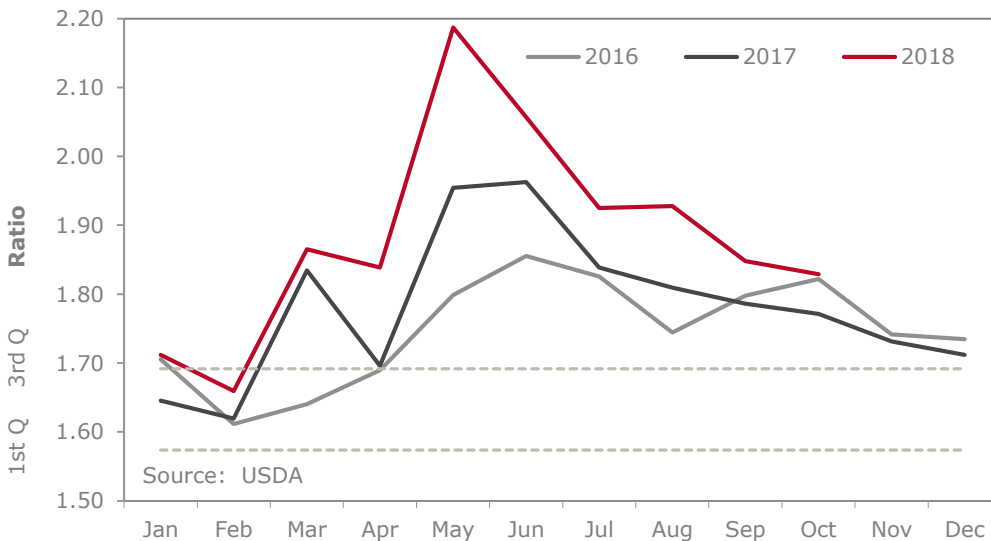
Packer Margin Environment: Pork, chicken and beef packer margins followed their seasonal patterns in October. Pork packers are gaining leverage against producers as plant capacity is tested. Chicken margins struggle with low product prices.

Chicken



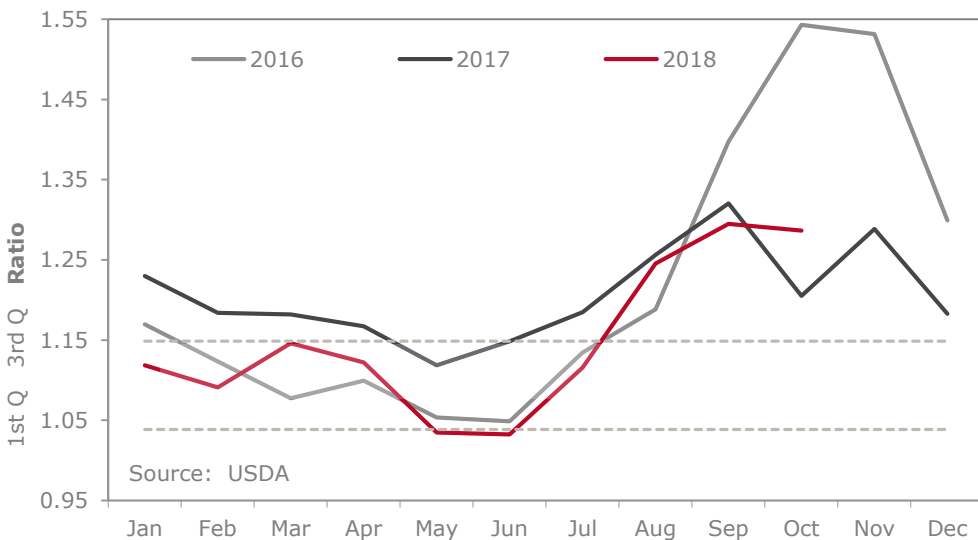
- Margins in October were 7% lower than last year. Cheap grain and meal prices are not fully offsetting lower product prices.
- Pricing remains low on turkey and pork, which is adding price pressure on chicken.
- The chicken industry will likely see lower margins the next several years due to expanding slaughter space in the industry.

Beef



- October margins followed seasonality and moved 1% lower from September. Beef packer margins remain strong compared to previous years and were up 3% Y/Y.
- Limited expansion in the fed-beef slaughter industry is expected to keep competition low and packer margins high.
- Though it is building slower than the last several years, the cattle herd is still increasing in numbers and providing ample supplies for beef packers.

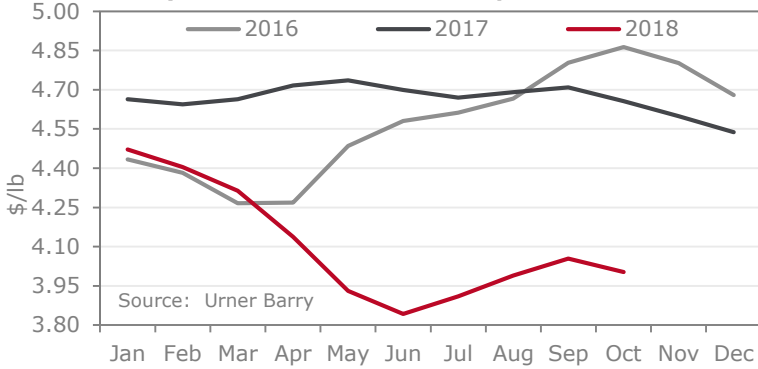
Pork



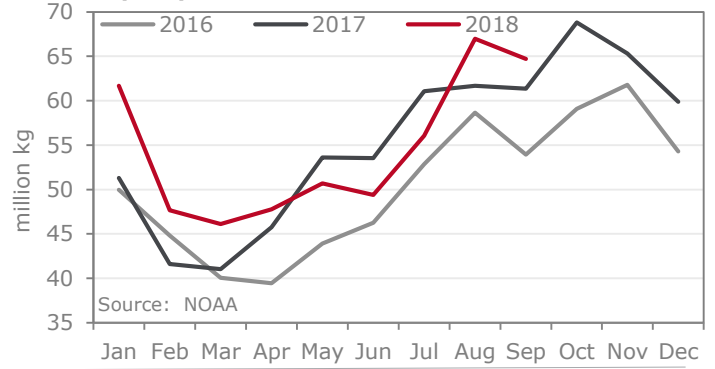
- Pork packer margins leveled out in October, following the seasonal pattern. Margins dropped slightly from September, but were 7% higher against a weak October 2017.
- A record high amount of hogs being produced is pushing capacity limits at packing plants and giving packer margins leverage.
- The expansion within the pork packing industry is moving slower than originally anticipated due to labor shortages.

Seafood: Prices continue to advance for both cod and pollock on forecasted lower quotas in 2019. The expected lower quota is overshadowing concerns about the U.S. 10% import tariff on product brought back into the U.S. after Chinese processing.

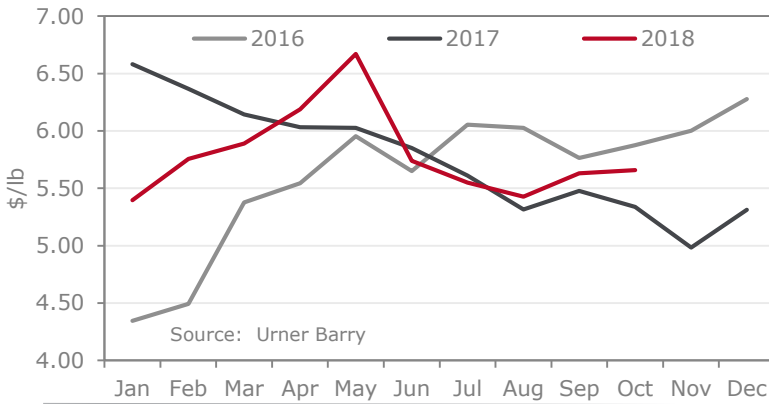
Urner Barry Farm-Raised White Shrimp Index



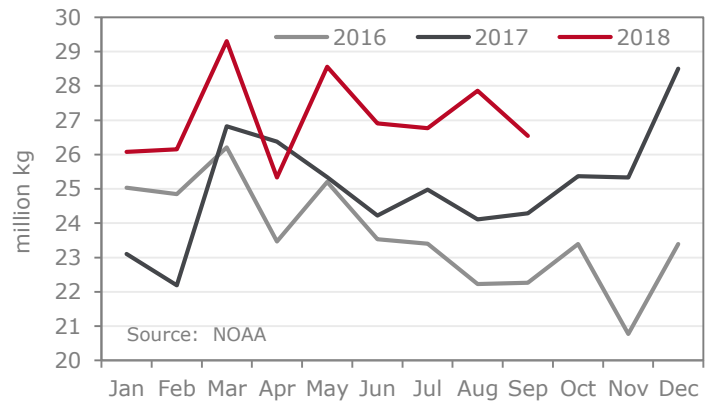
Shrimp Import Volume



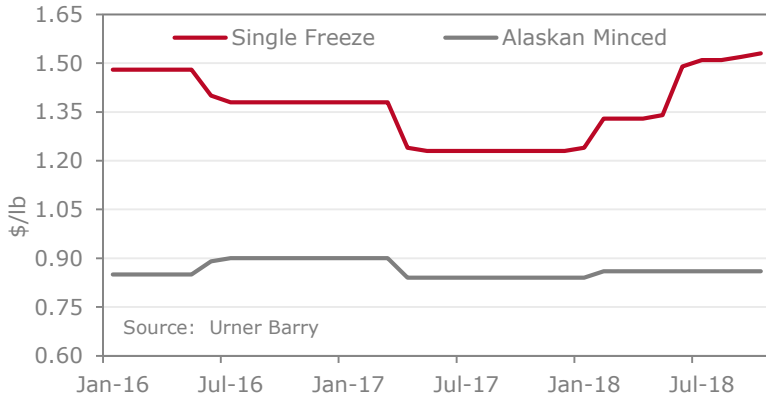
Urner Barry Fresh Farmed Salmon Index



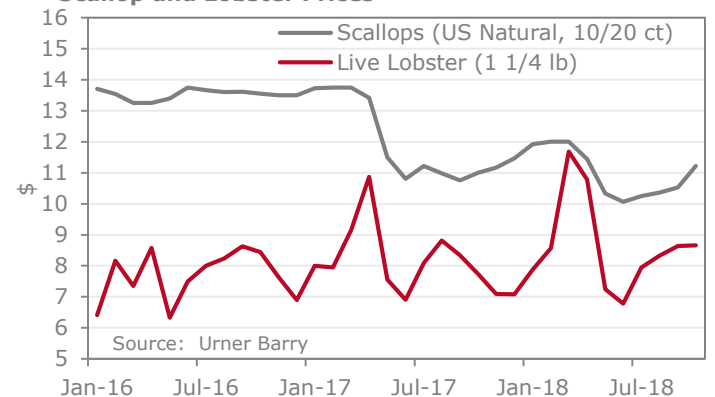
Atlantic Salmon Import Volume



Alaskan Pollock Prices

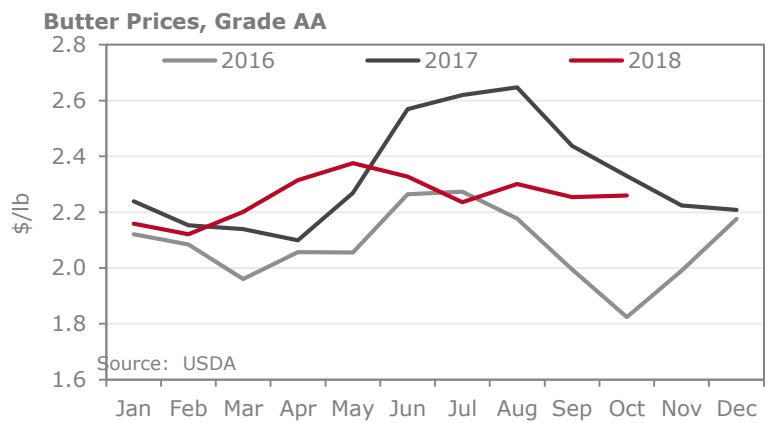
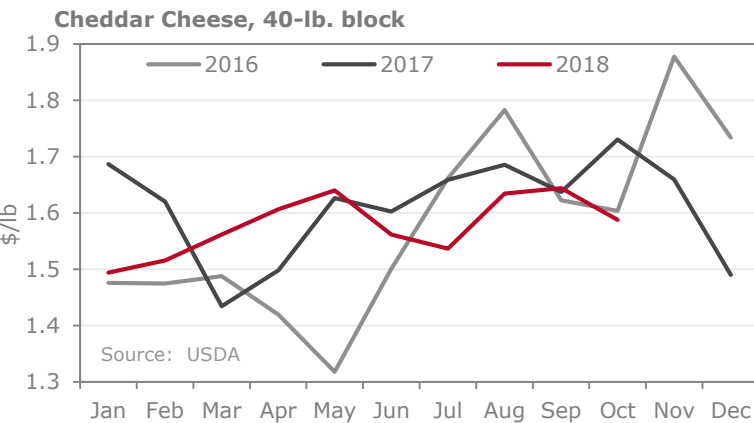
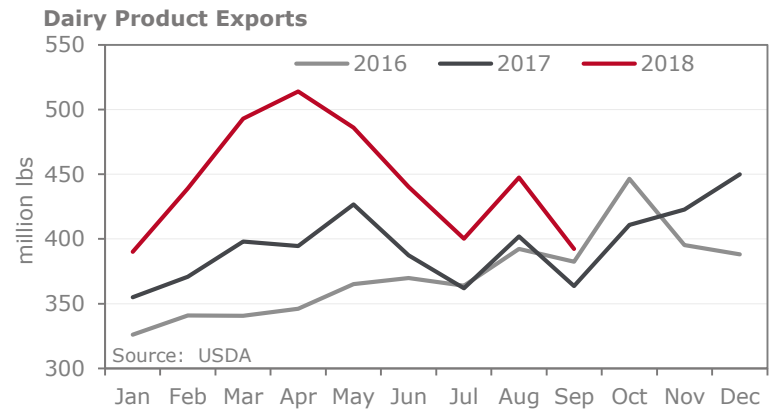
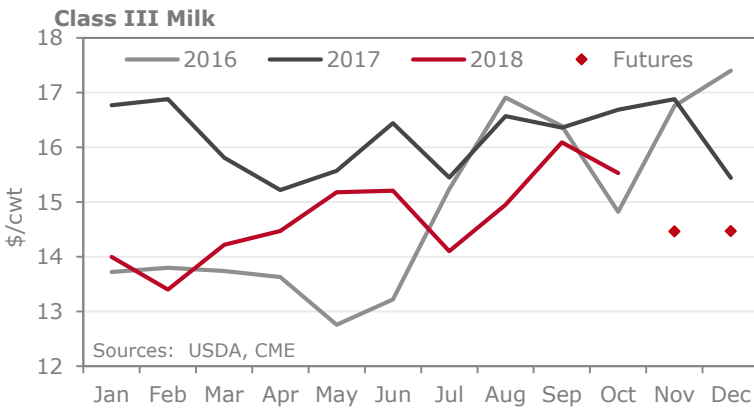
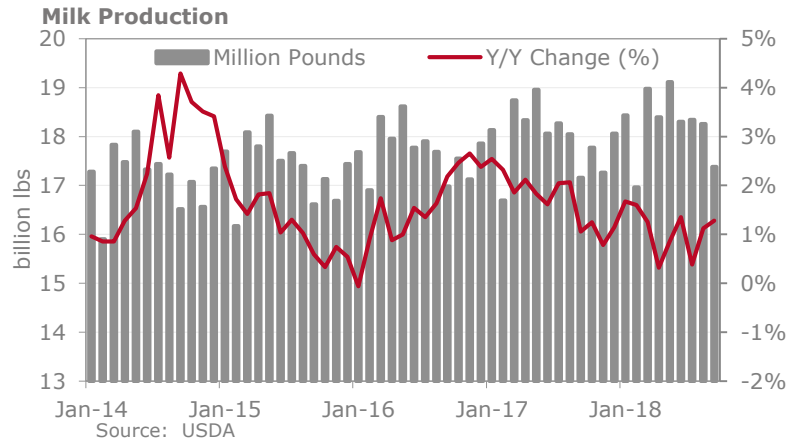
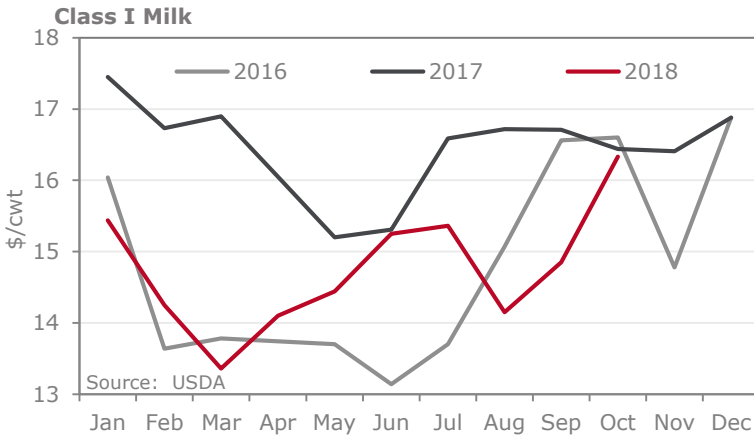


Scallop and Lobster Prices



- The UB farm-raised white shrimp index in October was \$4.00/lb., down 14% Y/Y. YTD '18 shrimp imports are 1,083MM lbs., up 4% Y/Y. Low prices continue to generate increased demand for shrimp imports.
- The UB fresh-farmed salmon index was slightly higher in October at \$5.66/lb., which is up 6% Y/Y. YTD Atlantic salmon imports through September totaled 537MM lbs., up 10% Y/Y.
- Pollock prices are expected to continue rising due to a 2.7% projected decline in global pollock supply in 2019. Alaskan pollock quota is expected to be cut by 6%. Russia will also see a decline in quota, but not until 2020.
- Cod prices remained flat in October, but are 14% higher Y/Y. The cod quota for 2019 was cut by 5%. The lower quota is expected to support prices into early 2019.
- Live lobster prices averaged \$8.66/lb. in October. This is up slightly from September, and up 12% Y/Y. Lobster prices are stable despite the Chinese tariff.
- Scallop prices jumped higher to \$11.22/lb. in October, up 7% from September and 7% higher Y/Y.

Dairy: Cheese prices moved lower in October due to higher production. Dairy cow numbers are shrinking, but stronger milk per cow growth is offsetting any potential production declines.

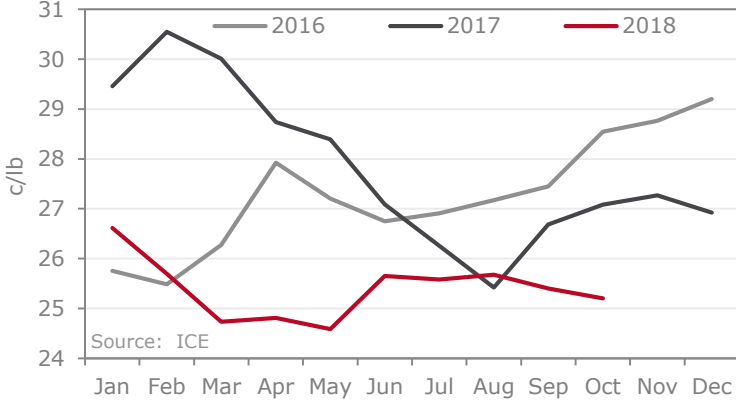


- The October USDA Class I milk price of \$16.33/cwt increased 10% vs. the prior month and decreased 1% vs. October 2017. The October average Class III milk price of \$15.53/cwt. decreased 3% vs. the prior month and decreased 7% vs. October 2017.
- The recent WASDE report slightly lowered production estimates based on lower cow herd numbers. Stronger growth in milk per cow is expected to partially offset lower herd numbers. 2018 production is estimated up 1.1% Y/Y and 2019 production is estimated up 1.4% Y/Y.

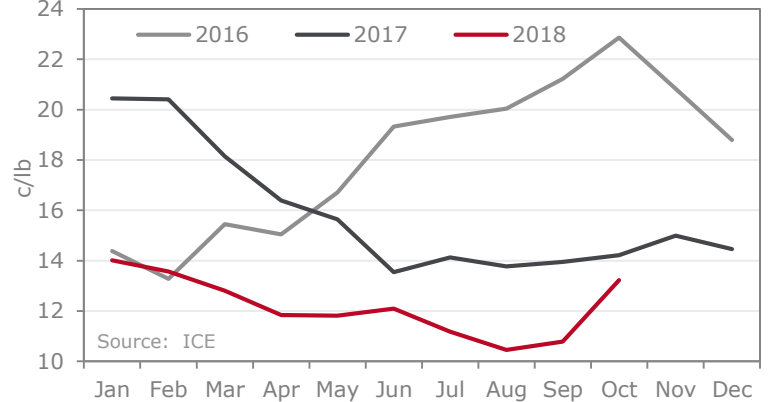
- U.S. milk production in September was up 1.3% Y/Y on stronger milk per cow growth. The milk cow herd size was down slightly vs. the prior year.
- Cheese production in September increased 3.1% Y/Y, a record for the month. Butter production decreased slightly at 0.1% Y/Y.
- The October USDA average cheddar cheese price of \$1.59/lb. decreased 3% vs. the prior month and decreased 8% Y/Y
- October average USDA Grade AA butter prices of \$2.26/lb. increased slightly at 0.2% vs. the prior month and decreased 3% vs. October 2017.

Specialty and Non-Grain Crops: U.S. spot sugar prices are up roughly 9% Y/Y. Continued significant price advances are unlikely.

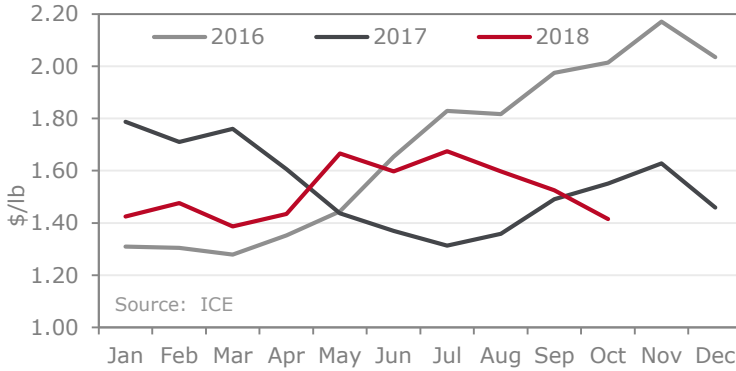
Sugar, #16 (U.S.)



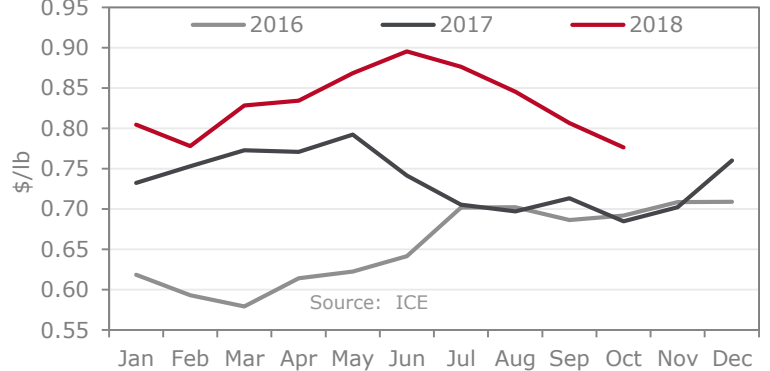
Sugar, #11 (World)



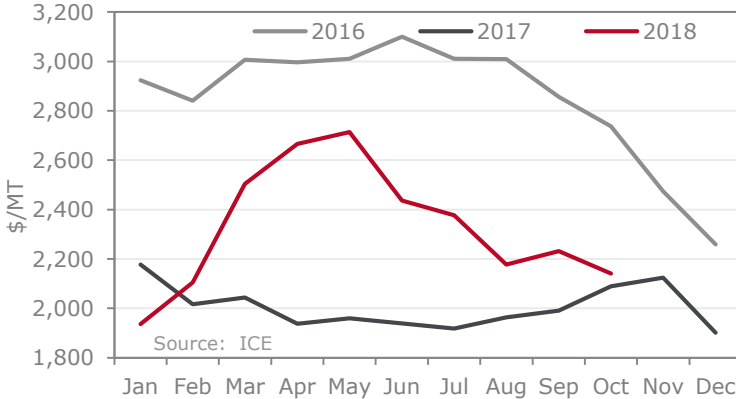
Orange Juice



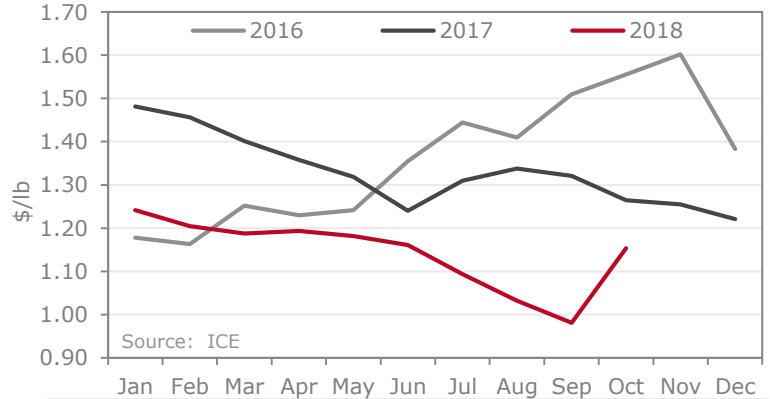
Cotton



Cocoa



Coffee

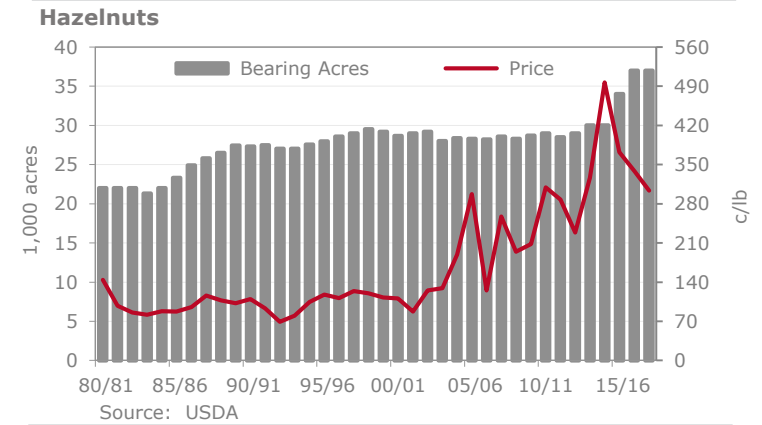
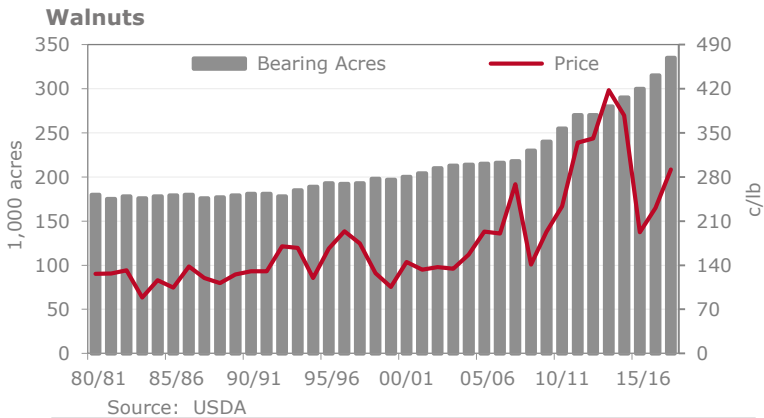
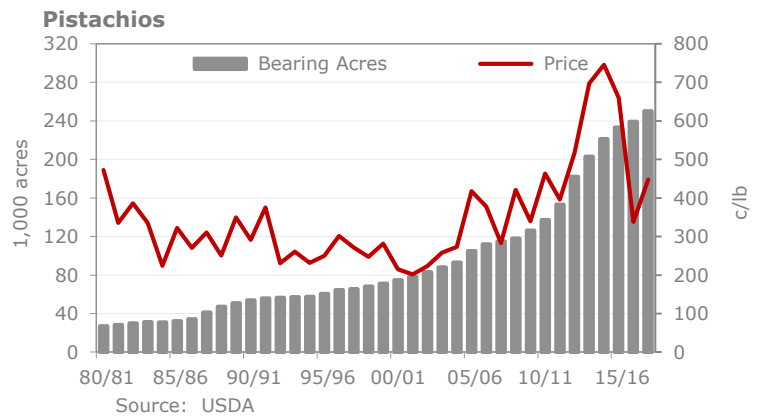
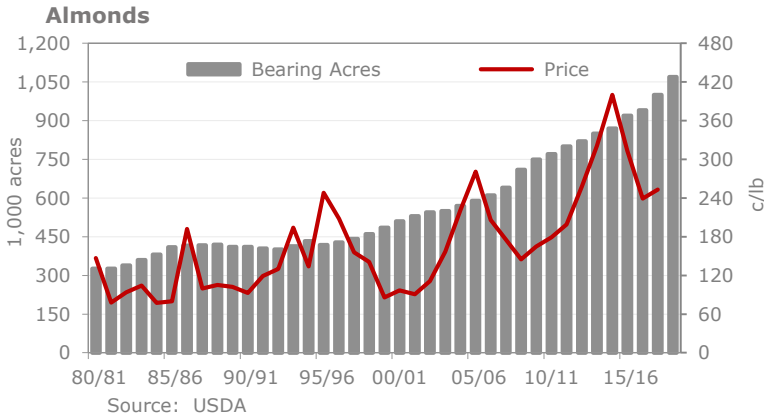


• While USDA is forecasting U.S. Stocks-to-Use (STU) ratio to decline to 11.3% for 2018/19, compared to 16% for 2017/19, support for stronger U.S. sugar prices in 2018/19 is dampened by the following overriding factors:

- Global oversupply of sugar has resulted in softer world sugar prices over the past year
- The USDA has lowered the domestic sugar consumption forecast for 2018/19
- Under the new U.S./Mexico trade agreement, increased Mexican sugar imports into the U.S. are allowed when the ending U.S. STU ratio is under 13.5%

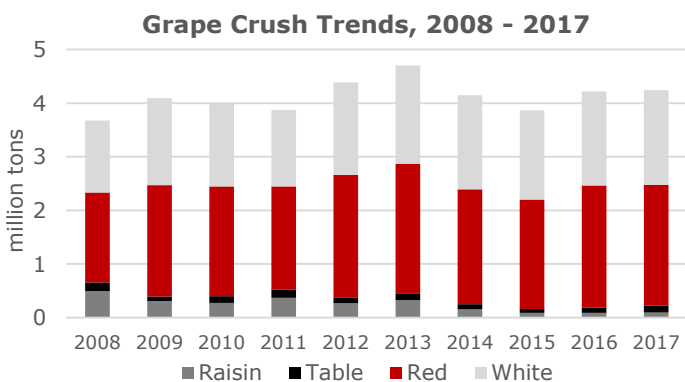
- The October average orange juice price of \$1.41/lb. decreased 7% vs. the prior month and decreased 9% vs. the prior year.
- The October average cocoa price of \$2,142/MT decreased 4% vs. the prior month and increased 2% vs. the prior year.
- The October average cotton price of \$0.78/lb. decreased 4% vs. the prior month and increased 13% vs. the prior year.
- The October average coffee price of \$1.15/lb. increased 18% vs. the prior month and decreased 9% vs. the prior year.

Specialty and Non-Grain Crops: Tree Nut and Wine Grape Harvest are wrapping up. Nut harvest has produced large crops of excellent quality, but smaller nut sizing is being noted. West Coast wine grape areas report a large crop of good quality.



- Almond, pistachio, and walnut harvest are wrapping up across California with large crops being reported. Quality is very good, although smaller than normal nut size is being reported.
- Almond pollinators were coming in heavier than the non-pareil varietal. Early season indications are that crop will not meet USDA 2.45B lb. projection. Prices stable at \$2.00 to \$2.50/lb. depending on variety and size.
- Walnut harvest is wrapping up, and it is being reported that yields may not reach the 680M lb. USDA projection. Walnut prices continue to be reported in the \$.90 to \$.91 per pound for new crop Jumbo Chandlers.

- Pistachio harvest is expected to come in heavy, around 900MM to 975MM pounds. Prices are holding firm within the \$2.50 to \$3.00 range.
- Hurricane Michael has effected the Georgia Pecan crop. Damage has been reported from trees blowing over and to harvested nuts on the ground due to water damage. Damage estimates are not yet available.

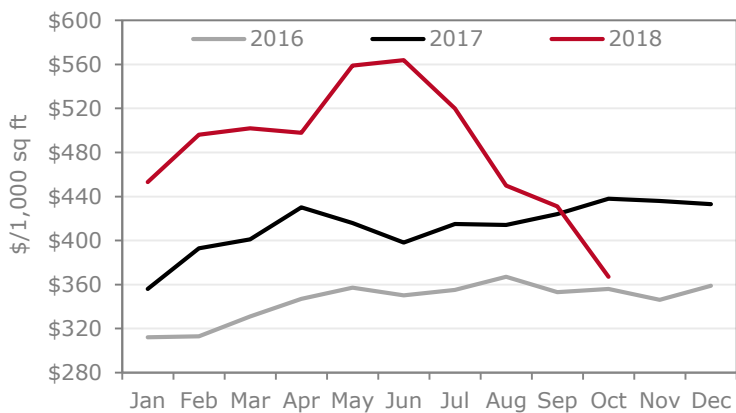


2017 Grape Crush Results

- Vintners reported abundant yields in line with the United States Department of Agriculture's August forecast of 4.1 MM tons.
- Vintners are enthusiastic about both the quality and quantity of the 2018.
- Industry potentially feeling an oversupply issue as bulk wine prices are low to clear tanks for new harvest.
- Pricing in the spot market is trending down on most varietals and locations.

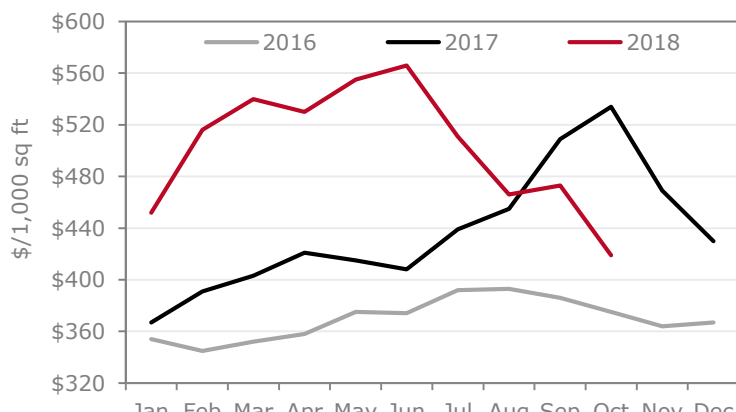
Forest Products: Lumber and structural panel prices fell sharply in October to the lowest level in over a year. September housing starts were up 4% Y/Y, and repair/remodel spending rose again in 3Q'18.

Framing Lumber Index



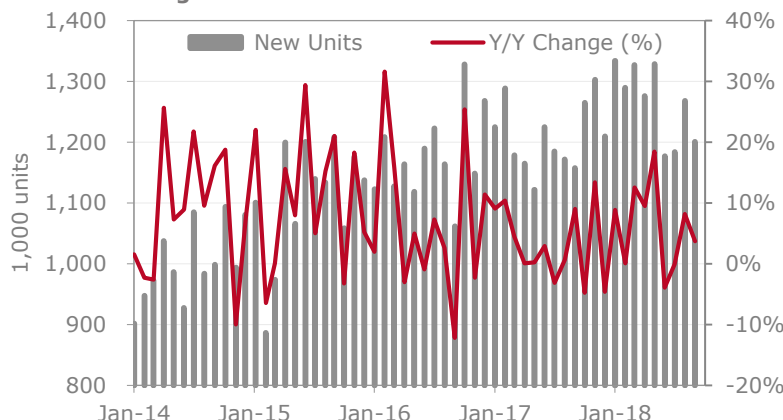
Source: Random Lengths

Structural Panel Index



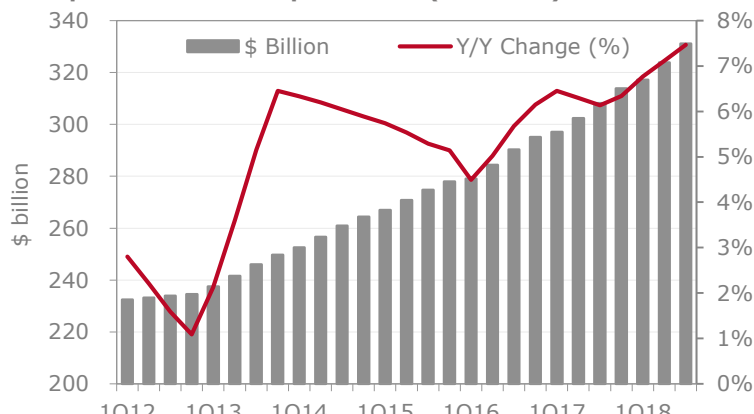
Source: Random Lengths

U.S. Housing Starts



Source: U.S. Fed

Repair & Remodel Expenditures (LTM total)

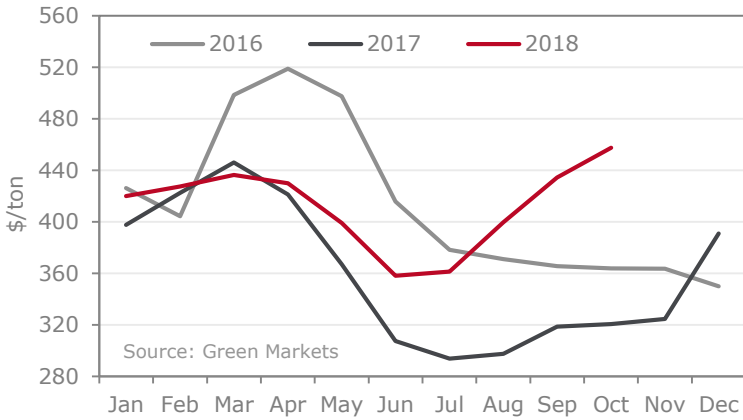


Source: Harvard Joint Center for Housing Studies

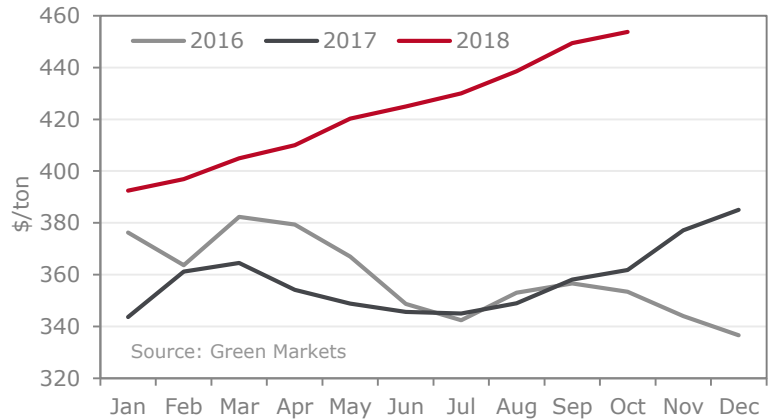
- The Framing Lumber Composite Index dropped another 15% in October to \$367/thousand sq. ft. This was down 16% Y/Y and the lowest since January 2017 as demand has not been strong enough to sustain prices at the lofty levels seen during the first half of 2018. Despite the decline in recent months, lumber prices are in line with levels seen during much of 2016.
- The Structural Panel Composite Index fell 11% in October to \$419/thousand sq. ft. amid the drop in lumber prices. This was down 22% Y/Y and the lowest since June 2017.
- U.S. housing starts of 1.20 million units in September were up 4% Y/Y. Declines in lumber and structural panel prices from their high levels during the first half of 2018 appear to have help housing starts rebound.
- LTM repair and remodel expenditures of \$331.1 billion during 3Q'18 were up 2% from the previous quarter and up 7% Y/Y, reflecting the largest Y/Y increase since 2007.

Crop Inputs: Ammonia prices are the highest in 2½ years and urea, DAP and potash prices are the highest in 3 years. Expected increases in U.S. wheat and corn acres are supporting nitrogen prices, while DAP and potash prices have risen due to production cuts following low prices.

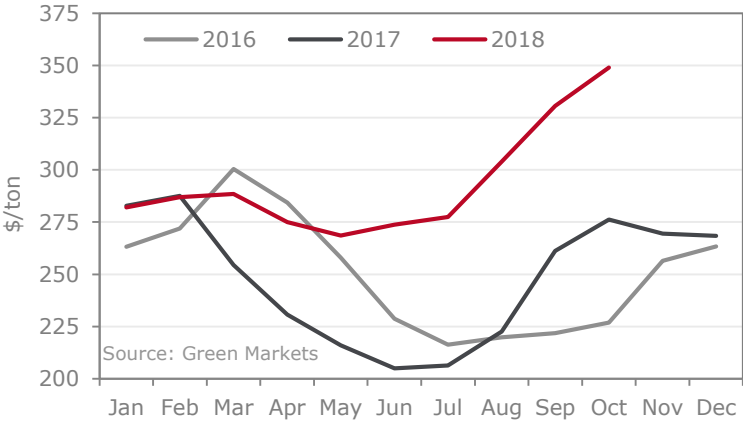
Ammonia



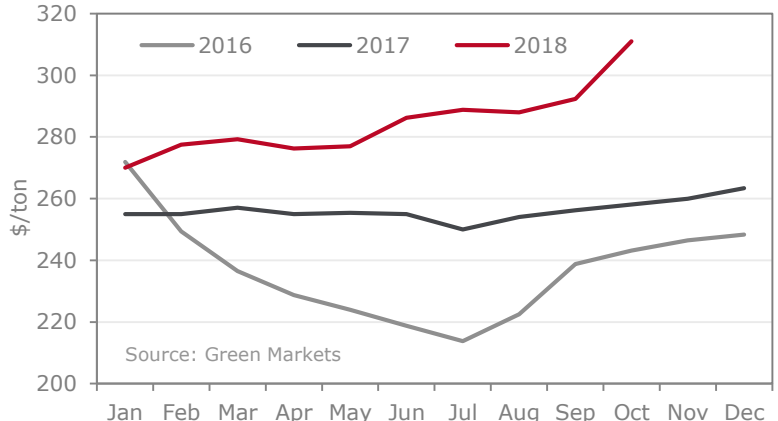
DAP



Urea



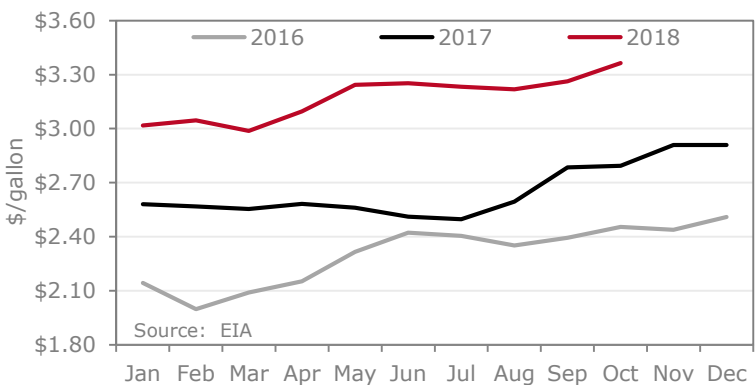
Potash



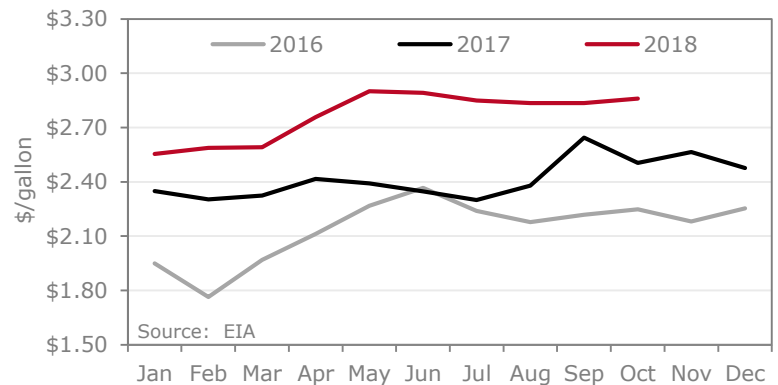
- Ammonia prices in the Corn Belt increased 5% to an average of \$458/ton in October as producers raised offers despite relatively slow near-term demand. This was up 43% Y/Y.
- Urea prices in the Corn Belt rose 6% in October to the highest level in over three years as solid export business brought firmer Gulf prices. The October average was up 26% Y/Y.

- DAP prices in the Corn Belt rose another 1% to an average of \$454/ton in October with near-term supplies still tight. This was up 25% Y/Y, mainly due to a plant closure in Florida.
- Potash prices in the Corn Belt averaged \$311/ton in October. This was up 6% M/M and the highest in three years as two key producers raised prices in late September and early October.

Diesel Fuel Prices



Gasoline Prices

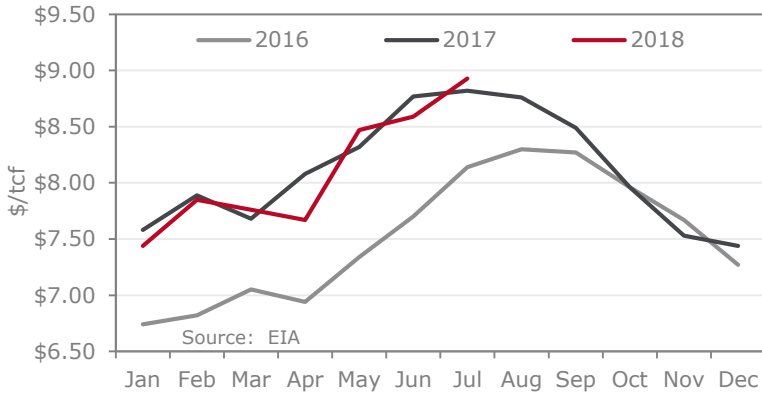


- The U.S. average on-highway diesel price averaged \$3.37/gallon in October. This was up 3% from September, and up 20% Y/Y.

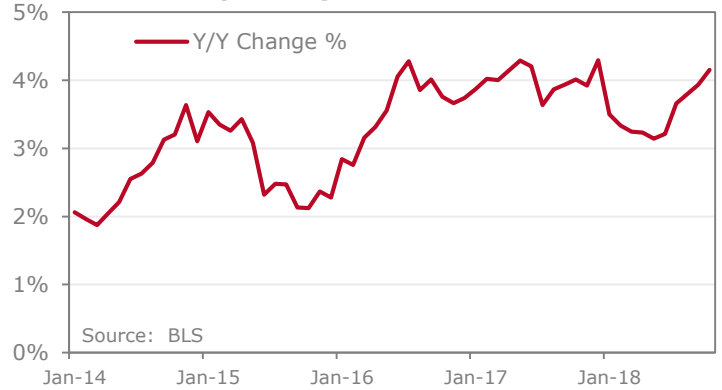
- Retail U.S. gasoline prices averaged \$2.86 in October, which was up 1% from September and up 14% from October 2017.

Energy and Labor: The Energy Information Administration estimates that U.S. crude oil production averaged 11.4MM barrels per day in October, down from September levels because of hurricane-related outages in the Gulf of Mexico.

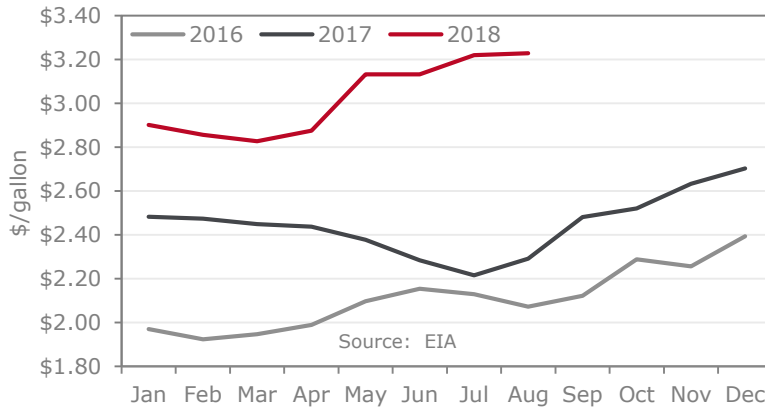
Natural Gas Retail Prices



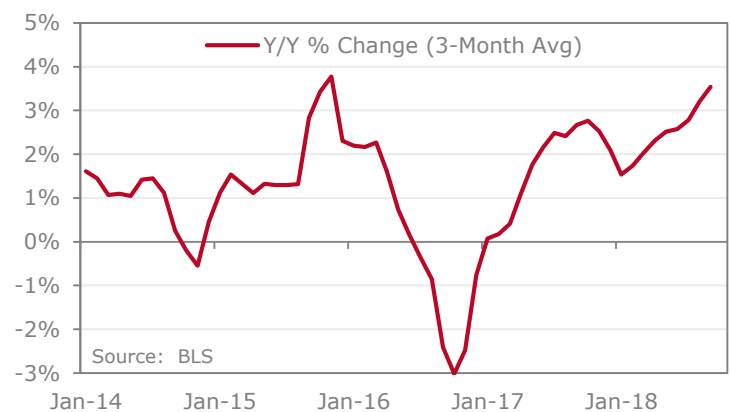
Restaurant Hourly Earnings



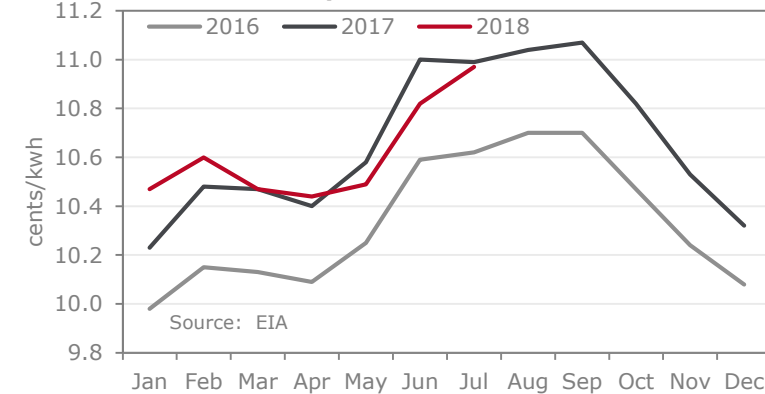
Heating Oil Retail Prices



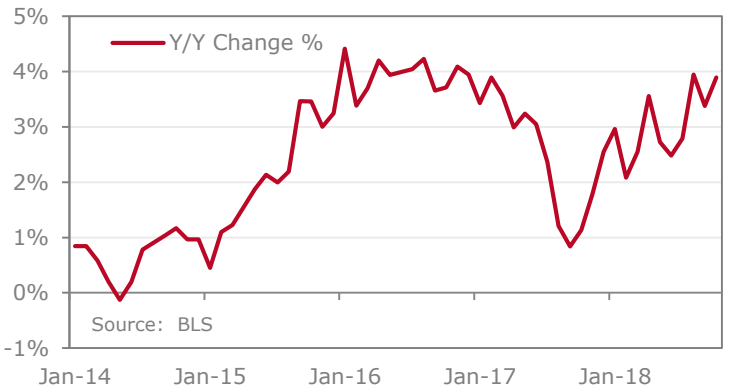
Supermarket Hourly Earnings (3-Month Moving Avg.)



Commercial Electricity Prices



Food Manufacturing Hourly Earnings



- The U.S. average retail price for natural gas increased 4% in July, but was 1% above the prior year.
- The U.S. average heating oil retail price of \$3.23/gallon in August was unchanged from July, but was up 41% Y/Y.
- The U.S. average retail electricity price of \$10.98/kWh during July was up 1% from June, and was unchanged from the prior year.

- The restaurant labor index was up 4.2% Y/Y in October, and increased 0.4% from the prior month.
- The 3-month average of the supermarket labor index was up 3.5% Y/Y in September, and up 1.1% from August.
- The food manufacturing labor index in October was up 3.9% Y/Y, and increased 1.0% from September.

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