***Welcome to the…***

**ISM – New York Commodity Corner**

**Third Quarter 2016 Report**

It is our intent to provide you with historic commodity pricing information, define trends, discuss forecasts, and most of all, to help develop insights regarding materials pricing. Commodities will be updated each calendar quarter, or as the specific need arises.

We hope you find this information useful and we are open to suggestions and questions to make this more relevant to your needs. Please send your questions and comments to: info@ismnewyork.org

***Crude Oil & Natural Gas***



**Crude Oil – Cost Drivers**: World-wide supply and demand balance, gasoline refining conditions in the US, regional/geopolitical instability and issues, commodity investment/speculation, global and local weather, OPEC statements and actions.

**Current Pricing Summary**:

3Q2015 @ $46.69/bbl

2Q2016 @ $45.60/bbl

3Q2016 @ $45.03/bbl (a decrease of 1.3% from prior calendar quarter and a 3.6% decrease calendar period to period)

FY2011 @ $94.54/bbl

FY2012 @ $94.21/bbl

FY2013 @ $98.01/bbl

FY2014 @ $93.01/bbl

FY2015 @ $48.88/bbl

Estimated FY 2016 @ $43.14/bbl (an estimated 11.7% year on year projected decrease)

Estimated FY 2017 @ $53.50/bbl (an estimated 24% increase from 2016 estimate)

**Natural Gas – Cost Drivers**: Natural Gas is largely a domestic natural resource. Cost drivers are supply / demand, weather, and to some extent, sympathetic movement to oil, in particular given its recent volatility.

**Current Pricing Summary**:

3Q2015 @ $2.76/MMBtu

2Q2016 @ $1.95/MMBtu

3Q2016 @ $2.82/MMBtu (an increase of 45% from prior calendar quarter and a 2.1% increase calendar period to period)

FY2011 @ $4.05/MMBtu

FY2012 @ $2.79/MMBtu

FY2013 @ $3.66/MMBtu

FY2014 @ $4.44/MMBtu

FY2015 @ $2.67/MMBtu

Estimated FY2016 @ $2.50/MMBtu (an estimated 6.4% year on year decrease)

Estimated FY2017 @ $3.25/MMBtu (an estimated 30% increase from 2016 estimate)



***Ethylene***

**Where Used:**  About 70% of North America’s ethylene production is derived from natural gas (30% from crude oil). Ethylene is the building block for a variety of the plastics we use daily, as well as solvents, surfactants, and other significant chemical feedstocks.

**Cost Drivers:** Although tied to natural gas and oil costs, ethylene is also subject to supply / demand swings, and in particular to the operating efficiency of the production facilities. Downstream end products (plastics, solvents, glycols, etc) can compete for the available pounds of ethylene, thus driving ethylene pricing.

**Current Summary:**

3Q2015 @ $.303/lb

2Q2016 @ $.303/lb

3Q2016 @ $.33/lb (a 8.9% increase from prior calendar quarter and calendar period to period)

FY2011 @ $.543/lb

FY2012 @ $.483/lb

FY2013 @ $.467/lb

FY2014 @ $.480/lb

FY2015 @ $.317/lb

Estimated FY2016 @ $.3102/lb (a projected 2% year on year decrease)

Estimated FY2017 @ $.34/lb (a projected 9.6% increase from 2016 estimate)

* Market remains a little on the snug side, but gradually moving towards balanced
* Seasonal factors tending to pull ethylene feedstock prices higher
* During Q4, market conditions are expected to ease somewhat, due to two crackers coming back on line

***HDPE***

**Where Used:** High density polyethylene is used in a wide variety of applications, including plastic milk containers, liquid detergent bottles, etc., and industrial applications such as plastic pipe for natural gas transmission and many automotive parts.

**Cost Drivers:** High density polyethylene is heavily influenced by the factors driving ethylene costs, and it also has its own supply / demand cost influences.

**Current Summary:**

3Q2015 @ $.728/lb

2Q2016 @ $.725/lb

3Q2016 @ $.742/lb (a 2.3% increase from prior calendar quarter and a 1.9% increase calendar period to period)

FY2011 @ $.708/lb

FY2012 @ $.688/lb

FY2013 @ $.77/lb

FY2014 @ $.853/lb

FY2015 @ $.728/lb

Estimated FY2016 @ $.719/lb (a projected 1.2% decrease year on year)

Estimated FY2017 @ $.672/lb (a projected 6.5% decrease from 2016 estimate)

* HDPE prices are expected to decline somewhat, due to new capacity coming on line between Q4 and Q1 of 2017
* Industry operating rate for September was at 93% as well as for the prior 3 month period
* September inventories rose by 3 days of supply (which is still 3 days below normal)

***PET***

**Where Used:**  This is the plastic used to make soda bottles, water bottles and plastic beer bottles, and is also used in the manufacture of carpeting and clothing.

**Cost Drivers:** PET pricing is tied to ethylene glycol and to xylene markets, supply / demand balances and it has historically had a seasonal influence (increased consumption during the summer due to water and soda bottle demand).

**Current Summary:**

3Q2015 @ $.679/lb

2Q2016 @ $.597/lb

3Q2016 @ $.588/lb (a 1.5% decrease from prior calendar quarter and a 13.4% decrease calendar period to period)

FY2011 @ $.961/lb

FY2012 @ $.906/lb

FY2013 @ $.876/lb

FY2014 @ $.79/lb

FY2015 @ $.655/lb

Estimated FY2016 @ $.587/lb (a projected 10.4% year on year decrease)

Estimated FY2017 @ $.603/lb (a projected 7.3% increase from 2016 estimate)

* Historically, this summary has been based on the “mid-size” buyer price index, which has been discontinued in favor of a new “large buyer” formula and market based index
* The PET/Polyester chain in the Carolinas was disrupted due to hurricane Matthew, resulting in idled capacity, for approximately one week; those plants have now restarted. Railcar traffic was also impacted, affecting resin transport

***Glycerine***

**Where Used:** Glycerine is used in cosmetics, foods, pharmaceuticals, and a variety of personal care and oral care products, as well as in other applications including animal feed, antifreeze and certain energy uses.

**Cost Drivers:** As glycerine is a byproduct of the production of other products, its cost is principally driven by the demand for glycerine for its various uses – the supply remains driven largely by the production of other products such as biodiesel fuels, soaps, fatty alcohols, and fatty acids.

Over the past few years the increasing use of biodiesel as a fuel in Europe, and increasing volumes in North America, has resulted in significant increases in the supply of byproduct glycerine globally, which will help drive the glycerine markets.

**Current Summary:**

* USA 99.7% Kosher quality glycerine spot pricing:

Sept 2016 @ $.31/lb

End 2016 estimated at $.30/lb.

* Europe 99.7% Kosher quality glycerine spot pricing:

Sept 2016 @ EUR 485/pmt

End 2016 estimated at EUR 485/pmt

* USA 99.5% technical grade glycerine spot price:

Sept 2016 @ $.27/lb

End 2016 estimated at $.25/lb.

* Europe 99.5% technical grade glycerine spot price:

Sept 2016 @ EUR 450/pmt

End 2016 estimated at EUR 450/pmt.

* USA 80% crude glycerine spot price for refining:

Sept 2016 @ $.05/lb

End 2016 estimated at $.05/lb.

* Europe 80% crude glycerine spot price for refining:

Sept 2016 @ EUR 210/pmt

End 2016 estimated at EUR 200/pmt

* Estimates based on 1 Euro Dollar = $1.12 US
* Contrary to the seasonality of previous years, glycerine prices have stuck to low, to very low levels, during Q3, even in geographies where glycerine generation has been on the low side

***Linerboard***

**Where Used:** Linerboard is the main component and cost driver in the manufacture of corrugated shipping containers, which are used in a broad variety of consumer industries such as food and beverage, as well as the automotive industry.

**Cost Drivers:** Linerboard is heavily influenced by supply / demand balances, inventories, conversion cost (energy), exports and industry consolidation.

**Current Summary:**

3Q2015 @ $770/tn list price

2Q2016 @ $755/tn list price

3Q2016 @ $755/tn list price (flat from prior calendar quarter and a 1.9% decrease calendar period to period)

FY2011 @ $670/tn list price

FY2012 @ $687/tn list price

FY2013 @ $758/tn list price

FY2014 @ $770/tn list price

FY2015 @ $770/tn list price

Estimated FY2016 @ $765/tn list price (a projected 1% year on year decrease)

Estimated FT2017 @ $772/tn list price (a projected 1% decrease from 2016 estimate)

* The market is projected to move up by $50/tn, $40 of which has been implemented during October due to the high box shipments of August and September
* 40,000 to 50,000 tons of production were lost due to hurricane Matthew
* Containerboard prices should once again come under downward pressure by mid-2017, barring any unanticipated supply shocks