

Raw Materials Update

Q4 2016

Macro-Economic Overview

The U.S. economy continues to grow. Impressive rates of retail sales and consumer spending may be the brightest light of Q4. The consistent health of employment and other key indicators may spur the Federal Reserve to begin the widely anticipated tightening of monetary policy in December.

Most aspects of the world economy are expected to either hold steady or improve slightly for the rest of 2016. Global demand will continue to grow through next year, but not

quickly enough to completely absorb high inventories of crude. While crude oil prices may show volatility on a weekly basis, most analysts see a trend just slightly up over the next two to three quarters.

Newly elected/appointed political officials in the U.S. may have some impact on domestic manufacturing and international trade. However, in the short-term, the political climate is not impacting our raw material outlook.

Adhesives & Silicones

Q4 2016 prices from propylene and polypropylene were influenced by supply disruptions in the U.S. and Europe. Unless we experience unexpected winter temperatures, petrochemicals in general will fall a bit into Q1 2017 then rise gradually for the rest of the year.

Acrylics: General marketplace prices for propylene and

acrylic monomers have increased in Q4. Propylene is expected to fall for the next couple months but then trend mostly flat in 2017 compared to 2016.

Hot Melt: Components and tackifiers have remained stable in recent quarters and are forecasted to continue this trend.

Silicones: Silicon metal and platinum pricing are stable.

Paper

NBSK pulp indexes remain below \$1000/ton. Global demand for coated papers continue to fall. However, specialty coatings like Direct Thermal (DT) continue to grow. Globally, DT capacity is

limited with most suppliers at full capacity. Focus is on securing volume, not just price, especially in Q4 when volume is at seasonal peak.

Film

Polypropylene

Demand continues to grow, but inventories are up due to imports as well as crackers coming back online domestically from planned and unplanned outages. North America's rig count also continues to rise signalling more potential feedstock availability. Pricing was down \$.015/lb in October compared to September, and we are expecting another \$.05/lb decrease in November with pricing stabilizing for December. The polypropylene market is forecasted to remain relatively stable for 2017 thus keeping pricing in line with the current state.

Polyethylene

Producers are expected to lower prices in order to secure Q4 volume and favorably position themselves to lock up 2017 supply contracts. North American is poised to feel the impact of incremental production capacity associated with the pending startup of various projects. Pricing remained flat in October, but is expected to decline by \$.03/

lb in November and another \$.02/lb in December. The incremental production capacity that is coming online in 2017 will help keep prices stable to slightly down next year compared to December 2016.

Polyester

Demand normalized following improved beverage segment in October due to warm weather. Regional prices for PET resin ticked up an average of \$.01/lb in October. Higher feedstock prices played a role in the increase, as did temporary shutdowns of regional PET production because of Hurricane Matthew. These temporary shutdowns are forecasted to bleed into November and cause a 0.75 cent per pound increase. However, slipping crude oil prices indicates zero increases for December. Pricing for 2017 will remain relatively flat as new domestic production is scheduled to come online.

PVC

Prices continue to trend upward.