

# Raw Materials Update

## Q1 2016

### Macro-Economic Overview

The U.S. economy is stable. Employment and consumer confidence are positive, dampened to some extent by global economic challenges – especially slowing growth in emerging markets.

Corrections in manufacturing and consumption around the world continue to keep the price of crude oil, crude derivatives and other types of materials low. The value of many commodities is now below production cost, indicating supply cuts are imminent. We are maintaining close relationships with suppliers to anticipate and mitigate risks.

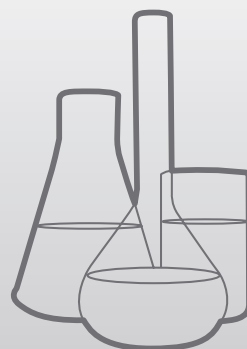
Although many commodities are at or near record lows, we have seen only a small impact to direct material costs. Within complex value streams throughout the oil, gas, chemical, film and paper industries, downstream refining, formulating and manufacturing companies are fighting to maintain margins and cover fixed costs despite lower demand.

### Adhesives & Silicones

Prices for acrylic monomers were flat from Q4 through Q1. Propylene is forecasted to remain stable for the rest of 2016. We expect more reductions in ethane cracking capacity to be announced throughout the year. We are closely watching prices and availability for specialty chemical derivatives as capacity is reduced.

Solvents and hot melt components remain stable at low levels.

Silicon metal prices were soft in 2015 due to low demand and excess inventory. The reduced demand has so far corrected the peak levels seen throughout most of 2014 — should stabilize in 2016. Platinum fell in 2015 but has seen a strong recovery in January primarily driven by strong automotive sales in Europe, and a strong rally in gold.



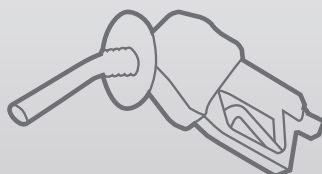
### Paper

NBSK pulp continues below \$1000/ton. Hardwood has dropped slightly while softwood is steady. Demand for base paper, driven by a reduction in publishing, continues to weaken.

Demand for coated papers, particularly those used for variable information, is increasing sharply with the growth in e-commerce and small package shipping. Growing demand for specialty coatings continues to drive price.

### Inbound Freight and Fuel

The upward pressure on freight rates from early last year has subsided.



### Film

Pricing for BOPP film has increased. As resin formulators continue to protect margin dollars and cover fixed costs, polypropylene increased 6% from Q3 to Q4 and is expected to rise further in 2016.

Prices for polyethylene, polyester and PVC are stable.