Chemicals and Resins Outlook

Resins: Key Market Drivers and the Outlook for 2020
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Enabling smarter purchasing decisions and supply chain cost savings

The IHS Markit Pricing & Purchasing Service enables supply chain cost savings by providing timely, accurate cost and price analysis.

Armed with a better understanding of suppliers’ cost structures and market dynamics, organizations can effectively negotiate prices, strategically time buys, and boost the bottom line.

Clients realize savings of up to 10% of overall spend
Key chemical and resin drivers

• **Pricing outlook has been lowered because of several factors**

  - Concerns about slowing demand are negatively impacting market sentiment

  - Oversupply conditions continue to persist, which are keeping pricing pressures muted

  - Soft feedstock cost pressures

  > **Buying conditions are clearly improved compared to 2018 and earlier in 2019**
Global growth slows, but no recession

<table>
<thead>
<tr>
<th>GDP (in local currency, percent change)</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
<th>2021</th>
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Manufacturing: the point of weakness in the global economy

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Shrinking backlogs and faster delivery times describe a buyers’ market
Global chemical production is dependent on feedstock source and varies by region

### Regional Ethylene Production: 2016

- **China**: Predominantly from Naphtha and Ethane, with small contributions from Coal to Olefins and Methanol to Olefins.
- **Europe**: Primarily from Gas Oil, with minor contributions from Naphtha, Ethane, and Methanol to Olefins.
- **N. America**: Slightly more balanced, with contributions from each feedstock type, but Gas Oil remains a significant source.

### Regional Ethylene Production: 2020

- **China**: Similar to 2016, with a slight increase in Ethane and a decrease in Coal to Olefins.
- **Europe**: Increased contributions from Gas Oil and a slight decrease in Naphtha.
- **N. America**: Minor changes in feedstock contributions, with Gas Oil and Naphtha slightly increasing.

Source: IHS Markit
Summary of chemical and resin pricing factors

- **Energy**
  - N. America: natural gas
    - Ethylene and ethylene derivatives are mainly via natural gas. Thus, a resin such as polyethylene is heavily impacted by gas feedstocks.
    - Cost of production for the aromatics chain (coming from benzene) is more strongly associated with crude oil, including in N. America. Thus, a resin such as polystyrene will be more influenced by oil.
  - Europe/Asia: crude oil

- In addition to feedstock costs, there are several other factors that can impact final market prices for chemicals and resins. These include, but are not limited to:

  - Demand growth
  - Alternative values
  - Production routes and technologies
  - Trade flows
  - Inventory and supply growth
  - Production capacity
Ethylene: Market has turned the corner, with prices now trending higher

- US contract prices pushed higher by 0.75 cents per pound (cpp) in July, and is forecasted to have risen by 2 cpp in Aug
- Additional price increases are projected for the fall
- Despite a continuing slide in feedstock costs, short-term supply disruptions have helped push market sentiment more bullish
- Still, new plant operations continue to come online. Thus, the price push is expected to ease soon, with the market shifting to a more neutral position by early next year
Big surge in new ethylene/PE capacity, notably in the US
New ethylene supply has come on quicker, with major price implications
Drivers of ethylene demand:
N. American profile

Total domestic demand: 33.3 Million Metric Tons
Polyethylene: US prices fell by 3 cents per pound in both July and August, as buyers have gained leveraging.
Polyethylene: Global supply and demand summary

**Polyethylene (HDPE) total demand**

- Western Europe
- Northeast Asia
- North America

**Polyethylene (HDPE) total production**

- Western Europe
- Northeast Asia
- North America

Source: IHS Markit © 2019 IHS Markit
Polypropylene: Outlook is for prices to decline slightly, with risk to the forecast on the downside.
Polypropylene: Global supply and demand summary

Polypropylene total demand in 2019

Source: IHS Markit © 2019 IHS Markit

Polypropylene total production

Source: IHS Markit © 2019 IHS Markit
**Bottom line:** North American PC prices will continue to ease into 2020, while Asian prices look to have reached bottom and will begin pushing up shortly.
Nylon: Prices finally pushing down for nylon66, as feedstock issues begin to clear up
ABS: Fourth quarter of this year is shaping up to be the ideal time to buy

The North American market has seen lower costs, softer demand, and lower prices of imported ABS

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<th>2019Q4</th>
<th>2020Q1</th>
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<tr>
<td>ABS, cts/lb (US)</td>
<td>86.7</td>
<td>81.7</td>
<td>79.3</td>
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<tr>
<td>ABS, $/mt (Asia)</td>
<td>1,511</td>
<td>1,412</td>
<td>1,358</td>
<td>1,405</td>
</tr>
</tbody>
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ABS Buying Strategy

- Buy now
- Buy as needed
- Wait

The downside pricing risk is strong over the next couple of months, especially in Asia

Stronger than expected production in the first half of 2019 and ensuing accumulation of finished goods has weighed on ABS prices in Asia

**Bottom Line**: Demand is soft and supplies are more than adequate. Still, feedstock costs will begin to rise, which will balance pressures by early next year. Thus, look to lock in and purchase this fall in Q4
Rubber: Natural and synthetic prices trending down and contained for the foreseeable future

Natural rubber outlook, cents per kilogram

Styrene Butadiene Rubber, dollars per metric ton

Source: IHS Markit © 2019 IHS Markit

Rubber: Natural and synthetic prices trending down and contained for the foreseeable future
Chemical and resins summary

• **Bottom Line:**

  > Prices are declining for most resin markets, with leverage on the side of buyers

  > Look to time purchasing and to lock in rates in late 2019/early 2020 when prices will generally be at their near-term low point

• **Risk Factors:**

  > The overall risk to the forecast is on the downside

  > Still upside risks are present: crude oil pricing/weather disruptions
Negotiating Tips for 2020

- **Polyethylene**: Lock in at late 2019 prices
- **Polypropylene**: Buy as needed
- **Nylon**: Ask for ongoing price drops
- **Polycarbonate**: Ask for ongoing price drops
- **ABS**: Capture price drops of 2019
- **Rubber**: Buy as needed