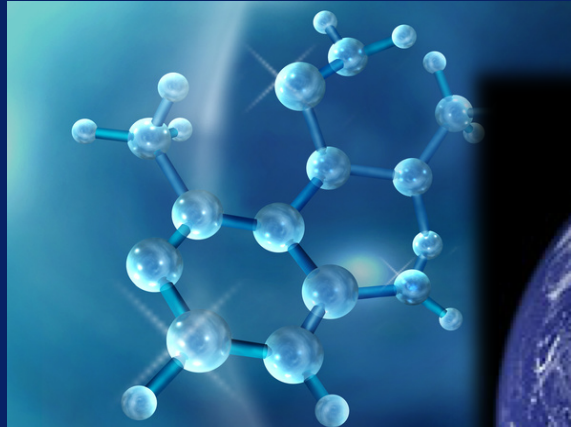


Brainfood for the Plastics Industry

Issue 22.23 – Dec 2022



Market Update

Plastics Feedstocks (Naphtha, Ethane, and Propane)

- Following crude oil, but to a lesser extent, naphtha prices (CIF Japan) are lower by 10% over the past month to a spot price of \$635/mt. Naphtha prices have more than halved since their March 2022 highs on account of very poor polymer resin demand globally, particularly in China.
- Propane prices dropped as much as crude oil this past month, falling by 20% to 70.5cpg (cents per gallon) in Mont Belvieu, TX.
- Ethane prices decreased to a spot price of 35cpg from 39cpg four weeks ago.

Ethylene

- Ethylene prices in the Enterprise system in Mont Belvieu, TX are down to 19 cents per pound (cpp) from 21.25cpp a month ago.

Propylene

- Physical PGP prices in Enterprise's system settled at 29cpp on Tuesday Dec 6. This is only 1cpp lower from our last report four weeks ago. For most of November PGP prices held strong between 30 and 33.5cpp only to retreat to the sub 30cpp level this week.
- One reason for the strong November PGP pricing was that Enterprise's PDH unit was down for a period of time.
- The spot strength in PGP over November led to an increase in the contract PGP price to 33cpp from 32cpp the previous month. The November contract PGP settlement was lower than what BlueClover had estimated around 36cpp.
- The November physical PGP monthly average was 31.475cpp, which is a tight spread to the contract settlement of 33cpp.
- Gross profit margins for Gulf Coast PDH units have increased from 5cpp four weeks ago to 9.5cpp ago on account of lower propane pricing.
- The following is what we wrote four weeks ago as to why PGP prices should continue to rally past 30cpp in November: *"Our reasons include: a strengthening global PP market after a massive correction, potential reduced capacity from the PGP supply side, and a strengthening crude oil market that has started to take hold..."*
- The rally in PGP past 30cpp that we were expecting did not occur. BlueClover was incorrect in our call for a strengthening PP market and a strengthening crude oil market. Both have not occurred. Our call for reduced capacity materialized with Enterprise PDH being down but the PGP market needed all three events to occur in order to rally into the mid 30s.
- BlueClover is revising its December forecast for contract PGP from 40cpp to 32cpp as the oversupply market for resin and lower crude pricing remains in effect. BlueClover is expecting PGP prices to rally to start the year in Jan 2023 and contract PGP for January to settle between 37cpp and 40cpp.

Polypropylene

- BlueClover wrote the following four weeks ago: *“There are beginning signs that the bottom for the PP market has been set and some strengthening should occur. Producers spent the past couple of months pushing excess capacity out through export markets while simultaneously reducing operating rates. From the demand side, customers have worked down their expensive inventory and have been replacing with new inventory at significantly lower pricing.”*
- So, in reality this has occurred, but it has still yet to put a rally into the price of PP! According to the ACC, exports of PP in October 2022 were more than double the previous month and were 2.5x as much as the 1st quarter 2022. Producers have lowered operating rates from the mid to upper 80th percentile in the first half of this year to the mid 70th percentile. Customers are looking to replace older resin purchases at higher costs with new material purchases at lower costs. Despite all three events occurring, the over-supply of PP remains in effect and the cherry on top is that yesterday, Dec 6th, Exxon Mobil announced it started PP production at its new Baton Rouge, LA plant.
- It appears the recipe for crashing PP prices is as follows:
 - Mix together two new world scale PP production units coming on line in the same year with a heaping spoonful of consuming spending on experiences rather than durable items. Gently fold in multi-decade high consumer price inflation for food and energy and bake in the oven at central bank raising interest rates degrees.
- Despite this recent addition of 450k mt/year of new PP capacity (ExxonMobil), BlueClover may be taking a contrarian view and will call for PP and PGP prices to rally somewhat in Jan and Feb 2023 but the overall market remains long heading into next year.

Crude Oil

BlueClover’s bullish crude oil view has been proven wrong the past month. Prices for WTI crude oil are off 20% to a spot price of \$73.88/barrel from \$92/barrel a month ago. While many industry analysts remain steadfast that the crude oil market is physically tight and supply shocks are possible this winter, the truth is BlueClover was too early in calling for this rally.

Remember when prices drop 20%, it takes more than 20% to get back to the older prices. In this case, it would take a 24% rally.

Natural Gas

Natural Gas prices are lower by 23% to a spot price of \$5.42/mmbtu.

Feedstock “Spot” Prices:

<u>Product</u>	<u>Location</u>	<u>Price as of Dec 6</u>	<u>Price as of Nov 7</u>	<u>Unit</u>
Brent Crude	North Sea, Europe	79.25	97.69	USD/barrel
WTI Crude	Cushing, OK	73.88	91.69	USD/barrel
Natural Gas	Henry Hub, LA	5.42	7.05	USD/MMBtu
Naphtha	C&F Japan	635	704	USD/mt
Ethane	Mont Belvieu, TX	35	39	Cents/Gal
Propane	Mont Belvieu, TX	70.5	88.5	Cents/Gal
Ethylene (Enterprise system)	Mont Belvieu, TX	19	21.25	Cents/Lb
PG Propylene (Enterprise)	Mont Belvieu, TX	29	30	Cents/Lb

* Sources – CME, Bloomberg

Inventory

HERO GREEN™ (Post Consumer PP Repro)		
Grade	Description	Location
HG3GR1	3 melt HomoPP - Grey	Midwest
HG16GR1	16 melt HomoPP. Grey	Midwest
HG22GR1	22 melt HomoPP - Grey	Midwest
HG6BK1	6 melt HomoPP - Black	Midwest
HG3GR3	3 melt CoPP 3.6 izod - Grey	Midwest
HG35GR3	35 melt CoPP 1.4 izod - Grey	Midwest



Trader Toolbox - The Lag of Commodity Pricing for the Consumer on Main Street

Moderation in food prices on global markets are yet to feed through into lower consumer inflation

Annual % change

— FAO food price

— OECD CPI food inflation



Source: Refinitiv
© FT

Many commodity prices are off from their 2022 high price points but consumers are yet to see the relief. The blue line in the above chart looks at the annual percentage change in the agricultural pricing index from the UN Food and Agricultural Org (FAO). The red line looks at the annual percentage change in the OEC Consumer Price Index food inflation.

The red line is still sitting around an annual 15% increase in food inflation and yet prices for the FAO index are almost unchanged from a year prior. This means that people are paying significantly more for groceries than they did a year prior but the spot prices for the commodities are unchanged. Reasons for this include increased costs for the producers in terms of fertilizers, energy and transportation. Also there is a feeling among the companies along the supply chain, that prices will rise again, and it may be more painful to lower prices and then re-raise them.

Ultimately, if the FAO food prices remain unchanged from last year, this will filter into lower grocery bills in the future.



Disclaimer

The information contained in this newsletter is for informational purposes only and it is not intended to be, nor should it be construed or used as, business, financial, legal, tax or investment advice or an offer to sell, or a solicitation of an offer to buy, any product or service. This newsletter does not consider the business objectives or financial circumstances of any specific person who may receive it. The information in this newsletter was prepared by Blue Clover and has been obtained from public sources believed to be reliable. Blue Clover makes no representation as to the accuracy or completeness of such information. Opinions, estimates and projections in this report constitute the current judgment of Blue Clover and are subject to change without notice.

Any projections, forecasts and estimates contained in this newsletter are necessarily speculative in nature and are based upon certain assumptions. In addition, matters described are subject to known (and unknown) risks, uncertainties and other unpredictable factors, many of which are beyond Blue Clover's control. No representations or warranties are made as to the accuracy of such forward-looking statements. It can be expected that some or all such forward-looking assumptions will not materialize or will vary significantly from actual results. Accordingly, any projections are only estimates and actual results will differ and may vary substantially from the projections or estimates shown. Blue Clover has no obligation to update, modify or amend this newsletter or to otherwise notify a reader thereof if any matter stated herein, or any opinion, project on, forecast or estimate set forth herein, changes or subsequently becomes inaccurate. Past performance is not indicative of future success and there is no guarantee that any business or investment strategy will be successful.