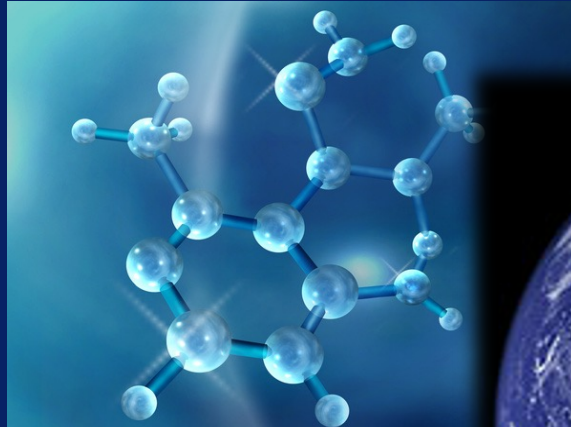


Brainfood for the Plastics Industry

Issue 22.15 – July 2022



Market Update

Crude Oil

WTI crude oil prices are lower by 8% when compared to levels from four weeks ago. The spot price today is around \$102/barrel.

BlueClover established a bearish view on crude oil in Brainfood edition 22.11 on May 25, 2022 when WTI was trading around \$110/barrel. After that call, prices rallied quickly to \$120/barrel but have since retreated all the way down to about \$100/barrel.

A significant reason for the move lower in crude oil, along with other commodity markets, has been the strength of the US Dollar compared to other major currencies over the past two months. For example, the US Dollar versus the Euro is trading at parity, meaning 1 USD is equal to 1 Euro. This is the first time this has happened in 20 years. Make sure you book your vacation to Germany now, while the dollar is strong and they still have enough energy to light the hotel room.

On May 25, our original call was for crude to break below \$95/barrel. On July 12th and July 14th WTI crude oil prices closed between \$95 and \$96/barrel. While prices did not dip below \$95/barrel for any end of day closing price, it got close.

We are amending our outlook to neutral on crude oil. The competing bullish and bearish factors are battling fiercely in the market. The inflationary pressures of pent-up demand and limited global supply remain in place. Examples of tight supply include USA stocks about 10% below its average inventory levels at this time of year as well as a Canadian crude pipeline (Keystone pipeline) declaring force majeure on delivering crude oil into the USA.

At the same time, the recessionary risks are present. Bank of America is predicting a decline in 4th quarter GDP of 1.4%. In Europe, Russia state owned natural gas company Gazprom just announced a force majeure event for their natural gas pipeline into Germany. This is going to make energy in Germany both extremely limited and expensive in the very short term and has a chance of driving Europe into a recession.

Natural Gas

Natural gas prices are up 8% this past month to a spot price of \$7.33/mmbtu.

The biggest reason for the price jump is the incredible high temperatures expected for much of the country over the next two weeks. Some analysts are calling for prices to top \$8/mmbtu. The year to date closing price high for Natural Gas (Henry Hub) is \$9.32/mmbtu on June 6th.

Plastics Feedstocks (Naphtha, Ethane, and Propane)

- Despite the bigger drop in crude prices, Naphtha prices (CIF Japan) are only down about 2% this past month to a spot price of \$775/mt
- Propane prices took a slightly bigger hit, down about 5% this past month to 114cpg (cents per gallon) in Mont Belvieu, TX.
- Ethane prices are higher following natural gas, trading around 64cpg in Mont Belvieu, up about 7% from a month ago

Ethylene

- Ethylene prices in the Enterprise system in Mont Belvieu, TX are relatively flat around 25 cents per pound over this past month.

Propylene

- Physical PGP prices in Enterprise's system currently sit at 46cpp, up only 1cpp from the 45cpp price level one month ago. However, two weeks ago, physical PGP pricing was trading around 41cpp (its low for the year) and then rallied to a short term high of 47.75cpp on Monday July 18. Yesterday prices retreated towards 46cpp.
- June contract PGP settled down 10cpp to a settlement price of 51cpp which was in line with our last estimate in Brainfood 21.13.
- The July estimated monthly average price for PGP is around 45cpp.
- BlueClover is estimating July contract PGP to drop by 3cpp to a settlement price of 48cpp but expect this number to increase in August.
- In our last report, BlueClover wrote it expects physical PGP pricing to rally over 50cpp in July and August. Reasons for this rally include: still somewhat strong crude oil and propane pricing despite their pullbacks; another reason is the possibility of hurricane disruption to supply; additionally, please read below about how a lack of natural gas in Europe can impact petrochemical production and make global supplies tight.
- The biggest risk to this higher PGP price direction call is that PP supplies have been increasing, producers have product available, and consumer demand into certain segments for PP is lower year on year.
- Check out the Trader Toolbox on Page 5 to see how PGP pricing can rally while crude remains at \$100/barrel.

Polypropylene

- We have been seeing widespec Homopolymer in the mid 60s price range for railcars delivered. Prime Homopolymer railcars are trading in the upper 70s.
- Russia is potentially going to restrict natural gas to Germany and other European nations. "Such an event would disrupt pan-European supply chains, particularly in the petrochemical sector, which depends on gas and petroleum as a raw material," said Gunther Oettinger, a former EU energy commissioner and German politician. Companies owning ethylene crackers and plastic reactors would have to lobby the government to keep their natural gas supply the same or risk lowering operating rates or shutting down. Governments must decide which market segments should receive the limited gas.
- Limiting a critical energy source like natural gas can have cascading downstream effects on olefins, plastic resins, and the products made from them.

Feedstock “Spot” Prices:

| <u>Product</u> | <u>Location</u> | <u>Price as of July 19</u> | <u>Price as of June 21</u> | <u>Unit</u> |
|------------------------------|-------------------|----------------------------|----------------------------|-------------|
| Brent Crude | North Sea, Europe | 105.76 | 114.51 | USD/barrel |
| WTI Crude | Cushing, OK | 102.01 | 110.57 | USD/barrel |
| Natural Gas | Henry Hub, LA | 7.33 | 6.79 | USD/MMBtu |
| Naphtha | C&F Japan | 775 | 800 | USD/mt |
| Ethane | Mont Belvieu, TX | 64 | 59.875 | Cents/Gal |
| Propane | Mont Belvieu, TX | 113.875 | 119.625 | Cents/Gal |
| Ethylene (Enterprise system) | Mont Belvieu, TX | 25 | 26.875 | Cents/Lb |
| PG Propylene (Enterprise) | Mont Belvieu, TX | 47.75 | 45 | Cents/Lb |

* Sources – CME, Bloomberg

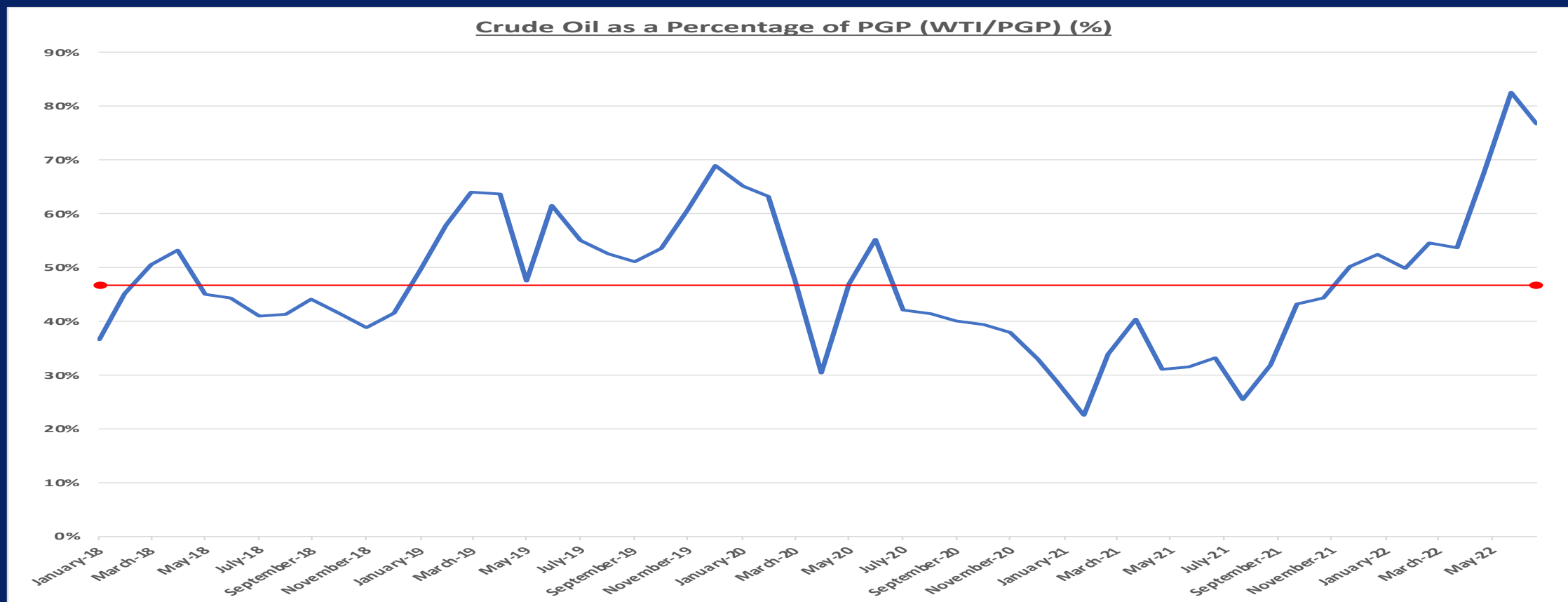
Inventory

| HERO PRIME™ | | |
|-------------|-------------|----------|
| Grade | Description | Location |
| | SOLD OUT | |

| Post Consumer PP Repro | | |
|------------------------|---------------------|----------|
| Melt | Description | Location |
| 3 | Black 3 melt HomoPP | Midwest |
| 16 | Grey 16 melt HomoPP | Midwest |
| 22 | Grey 22 melt HomoPP | Midwest |



Trader Toolbox – Is PGP cheap or Crude expensive?



The above is a monthly historical chart starting in Jan 2018 through July 2022. The data point for each month is a % of the WTI price in \$/lb divided by the PGP price in \$/lb. The 4.5 year average is 47% shown by the red line.

When these percentages are low, one may infer that PGP is expensive relative to crude oil. This can be seen in Feb 2021 (TX freeze) and Aug 21 (PGP prices average 92cpp). When these percentages are high, one may infer that PGP is cheap relative to crude oil. This can be seen in June 2022 (just last month when crude averaged \$110/barrel and physical PGP prices averaged 48cpp)

The above chart is part of the reason BlueClover has held a bearish view of crude since late May and a bullish view of PGP since mid June. If crude were to remain at \$100/barrel and PGP prices were to rally to 55cpp/lb, this % would sit at 62% which is still above its long term average. Its important to note that anything can happen (this chart can make new highs and lows like it has done in 2021 and 2022) but I think its helpful to put the PGP price in some perspective.



Why BlueClover?

BlueClover is the informed sourcing solution— bridging the gap between upstream knowledge, resin procurement and price risk management.

- ❖ Trusting relationship with a professional distribution company that trades polypropylene across a wide range of qualities at a multitude of price points for both spot and contract business.
- ❖ Full access to our Price Risk Management Team.
 - ❖ Work closely with our price risk management team with decades of commodity trading experience to determine when fixed pricing programs make sense for your business.
 - ❖ Access to BlueClover’s internal research and analysis on pricing and industry economics.

Please visit our website [here](#) for more information.



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