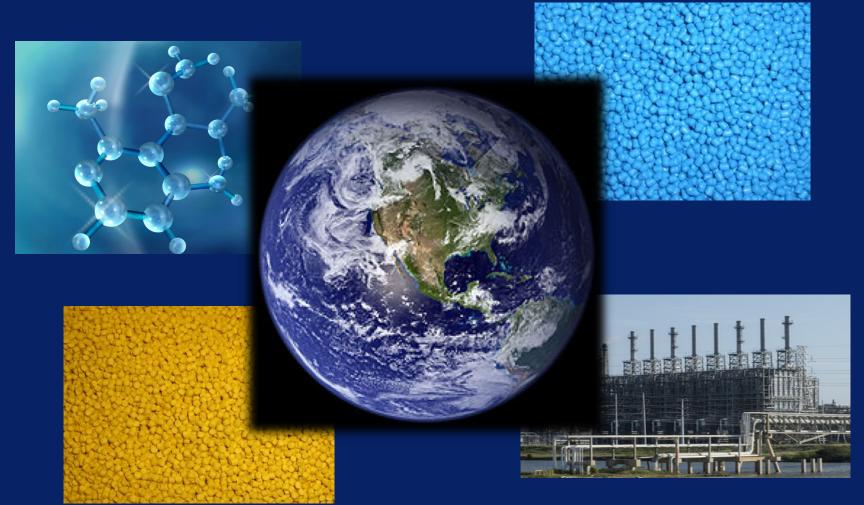
Brainfood for the Plastics Industry

Issue 22.22 – Nov 2022





Market Update

Plastics Feedstocks (Naphtha, Ethane, and Propane)

- Naphtha prices (CIF Japan) are higher by 5% over the past two weeks to a spot price of \$705/mt.
- Propane prices are higher by 6.5% from our last report to 88.5cpg (cents per gallon) in Mont Belvieu, TX.
- Ethane prices increased to a spot price of 39cpg from 37.25cpg two weeks ago.

Ethylene

• Ethylene prices in the Enterprise system in Mont Belvieu, TX are up 11% from two weeks ago to 21.25 cents per pound (cpp).

Propylene

- Physical PGP prices in Enterprise's system settled at 30cpp on Friday Nov 4. This is the same as where it settled two weeks prior on Tuesday Oct 25th. PGP prices had dipped slightly into the 29cpp price range over the past two weeks only to rally back up this past Friday.
- The physical low price for October was 23.75cpp, so physical PGP pricing is currently up 26% from its low point.
- The October monthly average for physical PGP in Mont Belvieu, TX was 28.47cpp.
- Most industry participants agreed to an October monthly contract PGP price of 32cpp, which is a 12cpp decrease from the September price. At the time of writing there remains objections by at least one party. BlueClover was estimating a decrease of 10cpp in October.
- Gross profit margins for Gulf Coast PDH units have decreased to spot spread 5cpp from 6.5cpp two weeks ago on account of higher propane pricing.
- Four weeks ago we held the belief that if PGP prices got to the mid 20s it would be a good buying opportunity. We wrote: "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..."
- BlueClover expects the rally in physical PGP to continue at a moderate pace in November.
- BlueClover is guessing that November contract PGP will come in around 36-38cpp (unchanged from the estimates in the last two Brainfoods) and December contract PGP will come in around 40-42cpp (unchanged from the estimate in our last Brainfood).

Polypropylene

- 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.
- The biggest risk for PP demand and pricing is that PP finished goods remain on the inventory floor for too long. Inventories for manufactured durable goods has been increasing for 20 straight months!

Crude Oil

BlueClover's bullish crude oil view has proved correct the past two weeks. At a current price of \$91.69/barrel, WTI crude oil prices increased almost 8% from two weeks ago. WTI crude prices are now back to the early October highs of around \$91-\$92/barrel.

Crude Oil's Bull Case:

- Reduced inventories domestically and internationally for refined oil products such as winter heating oil (highlighted in the Trader Toolbox of our last Brainfood Issue 22.21)
- Lower supply of refined oil products as a result of Russian oil sanctions set to take place in the European Union
- Reduced crude oil supply from Saudi Arabia and its OPEC ally nations to counteract the drop in crude oil pricing from the spring of 2022.
- The US Government has already depleted a significant percentage of the Strategic Petroleum Reserve.
- Potential relaxed China Covid restrictions.

Crude Oil's Bear Case:

- China remains strict about its Zero Covid Policy
- A major recession hits the US market.
 - A recent survey from the Conference Board and Business Council found 98% of CEOs anticipating a recession over the next 12 to 18 months. Much of this sentiment may be the result of rising interest rates.

However, it is extremely difficult to accurately time a recession and even senior leaders are subject to group think. We found the following 3 data points from Bank of America about the health of the US consumer to be very interesting:

- Customers are using their credit cards and other payment methods for 10% more transaction volume in Sept and 1st half October than a year prior
- Customers account balances remain higher than when Covid hit in early 2020.
- Customers are not behind on credit card payments with late payment metrics still well below pre-2020 averages.

Natural Gas

After falling about 20% over the middle part of October, Natural gas prices are up about 36% from two weeks ago at a price of \$7.05/mmbtu in Henry Hub, LA.

The significant rally in natural gas pricing is on the heels of a much lower than average temperature model in the 6-10 forecast for most of the United States.

Feedstock "Spot" Prices:

Product	Location	Price as of Nov 7	Price as of Oct 24	<u>Unit</u>
Brent Crude	North Sea, Europe	97.69	93.81	USD/barrel
WTI Crude	Cushing, OK	91.69	85.26	USD/barrel
Natural Gas	Henry Hub, LA	7.05	5.17	USD/MMBtu
Naphtha	C&F Japan	704	670	USD/mt
Ethane	Mont Belvieu, TX	39	37.25	Cents/Gal
Propane	Mont Belvieu, TX	88.5	83.125	Cents/Gal
Ethylene (Enterprise system)	Mont Belvieu, TX	21.25	19.125	Cents/Lb
PG Propylene (Enterprise)	Mont Belvieu, TX	30	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		
HG6GR1	6 melt HomoPP - Grey	Midwest		
HG3GR3	3 melt CoPP 3.6 izod - Grey	Midwest		
HG35GR3	35 melt CoPP 1.4 izod - Grey	Midwest		

Trader Toolbox - It's Not a Red Wave, it's a Reversion to the Mean

Year	President	Job approval #	Seats lost
1982	Reagan	42	26
1994	Clinton	41	54
2010	Obama	45	63
2018	Trump	41	42
	Average	42	46

Over the past 40 years, every time a President finished his first two years in office, his approval rating was lower than when he started, and his incumbent party lost seats in Congress. The only exceptions to this have been in wartime.

Inevitably, the party that lost the presidential general election will point to false promises from the campaign and what's wrong with the economy to garner Congressional seats in the midterm elections. The exception (see below) has been during both President Bush's first terms. The reason is that the county was going through the Gulf War in 1990 for George H.W. Bush and had recently invaded Afghanistan in 2002 for George W. Bush.

Despite your political views, at least President Biden did not start a war to get his approval rating higher. (Disclaimer: This does not imply the below wars were not justified). But please keep the above table in mind as it appears the Republicans are close to taking control of the

House.

Year	President	Job approval #	Seat change
1990	G. H. W. Bush	69	-8
2002	G. W. Bush	67	+8

Source: https://www.brookings.edu/blog/fixgov/2022/10/31/one-week-to-go-what-history-tells-us-about-how-the-house-races-are-shaping-up/

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