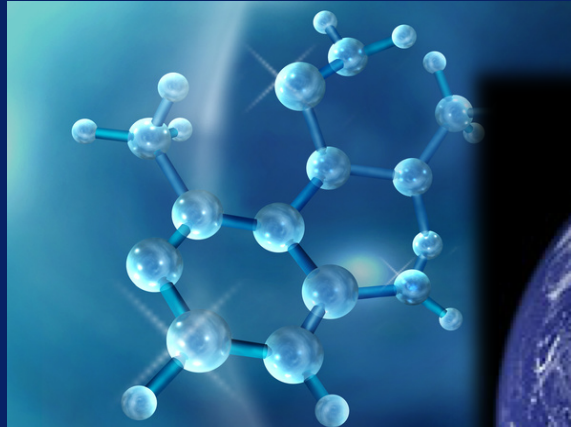
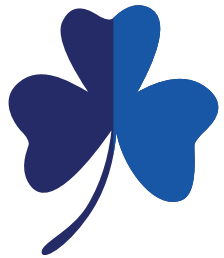


Brainfood for the Plastics Industry

Issue 22.02 – Jan 2022



Market Update

Crude Oil

WTI crude oil prices are up almost 10% these past two weeks to a spot price of \$84.83, marking the highest prices for crude oil since 2014. This is on top of an increase of 8% in the last two weeks of December.

What we got right and what we got wrong? In Brainfood 22.01 (our last report) we wrote that we remained bullish crude oil pricing throughout this winter (*correct so far*) but thought there would be a temporary pull back in pricing over the past two weeks as a result of air travel and supply chain shutdowns due to omicron (*wrong!*). Clearly, there has been no pull back in crude pricing with WTI pricing moving higher in 6 out of the last 9 trading sessions.

OPEC nations are forecasting global oil demand to reach 100.8 million barrels/day in 2022, which would be the highest demand on record. The previous record is set in 2019 at a demand rate of 99.7 million barrels/day. Many analysts are pointing to demand for light distillates going into the petrochemical industry as primary reason for growth. As the world continues to find new uses for plastics and petrochemicals, there is a significant pull on the price of oil.

From the supply side there remains significant tensions in the Middle East causing traders to own the commodity and nations to stockpile reserves. Specific events include Houthi rebels from Yemen attacking petroleum tankers in Abu Dhabi as well the potential Russian invasion of Ukraine. If the USA decides to enact sanctions against the Russian government, one potential response tactic by Russia might be to cut off energy exports.

Darren Woods, CEO of Exxon Mobil, recently stated the company has been expecting the recent price volatility but they are “anticipating lower prices going forward”. His view of lower pricing seemed to be less the next several months and quarters but more the longer term as supply ramps up to meet higher pricing and demand adjustments are made.

Natural Gas

We’ve been saying it for months, the very cold stretches the country experiences this winter will lead to price jumps in natural gas. Well, this arctic blast that hit much of the east coast this past week has contributed to natural gas prices jumping 14% to \$4.30/mmbtu in Henry Hub, LA.

For years, natural gas had been reduced to a commodity with no volatility as the USA had ample supplies but very little export capacity. However now that export capacity has significantly increased, the commodity has returned to favor among traders as a very volatile product. To put in perspective how much the exports have increased, in 2016, the USA exported 2.34 trillion cubic feet of natural gas, and some estimates for 2021 have that figure at 6.5 trillion cubic feet.

Market Update

Plastics Feedstocks (Naphtha, Ethane, and Propane)

- Naphtha prices (CIF Japan) continue to rally, increasing over 4% since our last report to \$770/mt
- Following in the footsteps of natural gas, ethane prices jumped over 10% to a spot price of 37 cents per gallon (cpg)
- Propane prices increased around 5% to 115.75 cpg.

Ethylene

- Ethylene prices in the Enterprise system in Mont Belvieu, TX increased 31% to 44.5 cents per pound (cpp) from 34cpp two weeks ago. Shell had an issue with an ethylene plant in Norco, LA that the company had successfully restarted on Jan 9. Otherwise, from the supply side there has been strong operating rates for steam crackers with PetroChem Wire reporting a 97% operating rate so far in the month of January for the Gulf Coast facilities.

Propylene

- Physical PGP prices in Enterprise's system in Mont Belvieu, TX have increased 12.5% from a spot price of 48cpp to a spot price of 54cpp.
- BlueClover had been citing the strong demand for PGP in the 46-48cpp as reason for potential price increases. We are still estimating an average spot physical price of approx. 55cpp for the 1st quarter however we are starting to see more upside price risk than downside with the higher energy complex (ex. Propane pricing) and potential cold weather events in the Gulf Coast region.
- PDH gross margins are holding on to their 20cpp floor as we had expected them to do in 2022. In Brainfood 21.25 in early December we wrote, *"We at BlueClover estimate gross margins to operate north of 20cpp for much of 2022"*.
- Enterprise's PDH facility was down for some time and is believed to have returned to service.
- The month to date average price for January physical PGP is around 52cpp. This will rise over the next several days as spot is trading at 54cpp currently.
- BlueClover is revising its estimate for January contract PGP from down 2cpp to a flat settlement at 56cpp.

Polypropylene

- While it does not appear the PP market has increased by 6cpp over these past two weeks like PGP has, we are starting to see signs of PP prices rallying. For example, low end widespec homopolymer PP is demanding a premium compared to December prices.
- The American Chemistry Council is reporting an estimate for December PP exports that would make it the highest monthly figure for the 2021 year. This is typically the case in years past. It is most likely a result of increased supply and companies looking to monetize inventory to cash at year end.

Feedstock “Spot” Prices:

<u>Product</u>	<u>Location</u>	<u>Price as of Jan 18</u>	<u>Price as of Jan 4</u>	<u>Unit</u>
Brent Crude	North Sea, Europe	86.98	80.18	USD/barrel
WTI Crude	Cushing, OK	84.83	77.20	USD/barrel
Natural Gas	Henry Hub, LA	4.30	3.77	USD/MMBtu
Naphtha	C&F Japan	770	738	USD/mt
Ethane	Mont Belvieu, TX	37	33.625	Cents/Gal
Propane	Mont Belvieu, TX	115.75	110.375	Cents/Gal
Ethylene (Enterprise system)	Mont Belvieu, TX	44.5	34	Cents/Lb
PG Propylene (Enterprise)	Mont Belvieu, TX	54	48	Cents/Lb

* Sources – CME, Bloomberg

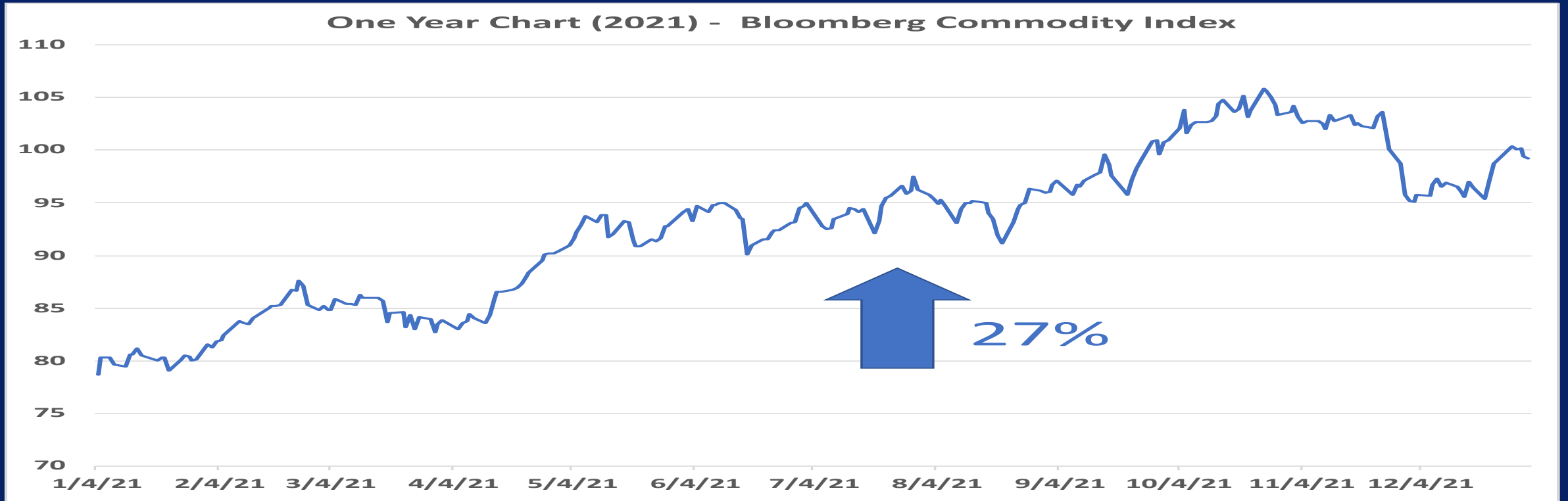
Inventory



HERO PRIME™		
Grade	Description	Location
HP12	12 melt Barefoot HoPP	Midwest

HERO FLEX™		
Grade	Description	Location
HG0406	4-6 melt Black PCR HomoPP (0% ethylene)	Midwest
H0810	9-10 melt Homopolymer Barefoot	Midwest

Trader Toolbox – Commodities Set to Outperform??



In 2021, the Bloomberg Commodity Index (an index that tracks the performance of several commodities with a large focus in energy (about 30% of the index), metals (~30%) and grains (~20%)) returned 27%. 2021 was the index's best year in decades. Over the same time period, the S&P 500 gained 27%, the Nasdaq 21% and the Dow Jones 19%.

Blackrock and other financial institutions are guessing that commodities will be the best performing asset class of 2022 as a result of high inflation rates, tightening supply vs demand dynamics, and continued logistical bottlenecks. Quite simply the demand for stuff is very high versus historical periods and the rate of investment in new production simply has not kept pace. This "stuff" includes petroleum for plastics, corn for global food consumption, and lithium for electric vehicles.

So if you agree we are in the midst of another commodity super cycle, then 2022 sure seems like another year of significant returns for those invested!



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 along with potential outsourcing to industry experts on commodity markets.

Please visit our website below for more information.



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