

Oil Market Report: August 2021

It would be “stating the bleeding obvious” to say that the pandemic has seen both winners and losers in the business world. Clearly those in leisure and hospitality have been severely battered, whereas those involved in food delivery and online retail have never been busier. The oil industry has been no different, although overall, there have probably been more losers than winners. Exploration companies were hit for 6 by last year’s low prices, refiners continue to face existentially challenging low margins and fuel retailers are still waiting to see a full recovery in demand. However, one oil related sector that has ridden the storm impressively over the last 18 months is petrochemicals.

The petrochemical business is responsible for a myriad of different and complex materials that span almost every industry in the world, from food to fertiliser, medicine to cosmetics and agriculture to construction. At its heart are two key polymers – polyethylene (which is often used in liquid form) and polypropylene (which is the main component of plastic), and the one thing we can say about the covid pandemic is that it has ensured demand for both these two products has sky-rocketed! Over 60m plastic (and disposable) face-masks have been used every day in the UK in 2021, whilst globally that figure was more like 4.3bn face-masks daily, along with 2.1bn disposable plastic gloves.

The key component to all this plastic manufacture is the little known (outside the industry at least) product of naphtha. One of the first products to fractionate in the distillation process (ie, very light), naphtha boils off the refinery stack at around 180 deg C. Its characteristics are mostly similar to gasoline (it can be used as an octane enhancer), but it is rarely used for conventional energy combustion. Instead, it is sent for petrochemical processing as both a feedstock and a blending component for the manufacture of plastics, pharmaceuticals, dyes, fertilisers and (increasingly) hydrogen.

When the pandemic struck in early 2020, demand for naphtha fell thorough the floor (along with every other refined product) and prices hit rock bottom accordingly - in April 2020, the traded naphtha price fell below \$140 per tonne (around 8 pence per litre = ppl). However, as demand for single-use medical equipment, home-testing kits and online food and product packaging began to soar, so naphtha prices responded. Overall demand for certain plastic resins increased by over 350% in the second half of 2020 and by June, naphtha prices had already more than doubled to \$360 per tonne (20ppl). Since then, demand for naphtha has shown no sign of slowing up, with prices topping \$660 per tonne (37ppl) in the second quarter of this year.

No surprises then that 2020 and the first half of 2021 have turned out to be absolutely bumper years for the global petrochemical industry. Global profits rose from \$340bn in 2019 to over \$500bn in 2020. As demand for plastics continued to strengthen (up 25% in 2020 vs 2019), producers were able to pass on the increasing costs of naphtha to ever more frantic buyers. Meanwhile, refiners were left ruing the fact that one of the few products making them any money, was only accounting for circa 5% of the crude oil yield (ie, 100 litres of crude gives 5 litres of naphtha). Even increased product runs for high concentration hand sanitiser and disinfectants (greater naphtha content) couldn’t help the basic refining conundrum that 95% of other (non-profitable) crude oil products still needed to be got rid of....!

The story of petrochemicals in the pandemic is an interesting one, particularly when it comes to plastics. Prior to 2020 and with good reason, the world was railing against the industry and single use plastics specifically. The reality is that around 90% of plastics end-up in landfill (or just dumped), with no chance of ever being recycled, upcycled or decomposing. But in a world turned upside down by the pandemic, these products have become unlikely saviours in the battle against Covid-19. It makes for an environmentalist’s bad dream, but in the midst of a global crisis, no government anywhere in the world was too bothered about the sustainability of their plastic purchases. They just needed container after container of the stuff, because it was central to every single process involved in dealing with the virus. Sadly, the same principle applied to housebound consumers, who bought every product under the sun - as long as it was wrapped in plastic packaging!

Which takes us neatly to the overall decarbonisation agenda. Getting rid of fossil fuels for combustion is one thing, but getting rid of fossil fuels in their entirety is a completely different scale of challenge. This applies at any time, let alone in the middle and aftermath of a crisis. When it comes to plastics, there is simply no other material on earth that can be produced at such low cost and such scale, and yet is so effective and useful in so many different ways. And if the world wants plastic, then what will we do with the remaining 95% of the crude oil barrel...?