COVID -19 AND THE OIL MARKETS

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ANYONE who thinks they could try and forecast how this pandemic will play out in the oil markets must be a very brave person indeed.

I have been around long enough to have seen a few oil crises in my time, but the nearest I can get to match this one, is the Yom Kippur war of 1973 and the subsequent quadrupling in the price of oil during the first quarter of 1974. I was then one of BP's crude shipping and refining operations team.

The Yom Kippur war was started on 6 October 1973 when Egyptian and Syrian Forces and the Egyptian Air Force launched an attack on Israel during the holy day of Yom Kippur. They caught the Israelis off guard, but the counter-response was fierce.

Subsequently, the Arab nations took the side of Egypt and accused the West of aiding and abetting the Israelis. An oil embargo was instituted by members of AOPEC (Arabian Oil exporting countries) against perceived supporters of Israel, primarily the USA, UK, Canada, The Netherlands, S Africa and Portugal (My guess is that they used this as an excuse to hike the price of oil and to nationalise their oil fields). This resulted in a scramble for oil from other sources and drove the price up by 400%.

The reaction in Europe and the United States was a major deflationary effect on demand for petroleum products, together with a ramping up of exploration in 'safe' areas, such as the North Sea, Canada and Alaska.

The price rise resulted in a massive drop in demand and a massive surplus of crude oil that could not be absorbed easily in the refining system. The oil pipeline of ships on the water that had loaded 30 days prior could not be reversed.

The result was a massive scramble for oil storage capability and a huge number of floating storage tanker charters.

I remember well thinking at the time, that if I strung together in the English Channel, the VLCCs waiting to discharge their cargoes, I could easily build a bridge between France and the UK.

The storage companies made an absolute killing and it also made a fortune for the few brave traders who went long (without any hedging options) and who are still around today. The oil majors, on the other hand, suffered badly as their obligations to maintain supplies to their customers, meant that they had to absorb the expensive crude they had bought at least a month prior. Thus, they took a hit on the higher cost of storage and the lower cost of product at the pump. In addition to this, there was financial inflation generated by the recycling of petrodollars.

This recycling of Petrodollars pushed up wages and the cost had to be borne by the refiners without the ability to pass it on. Not only that, but 1974 was the year when most Arab countries nationalised their oil industry and the majors got little in compensation. Not only that but they had to agree to minimum volume offtake contracts.

A lot of them scrambled to invest in alternative cash generating companies, or so they thought. None had the right skill sets to run mining investments or electric typewriter manufacturers. The result was that as soon as the oil industry started to take off again, these diversionary investments were sold off, usually at a loss.

We will see a bit of this activity coming back again as investments by the majors in green energy start to take off.

If demand for fossil fuels does not recover as quickly, as the oil companies hope, then the climate change pressures may reduce and activists might disappear.

We are now looking at a similar scenario to 1974. The lockdown in most consuming countries is resulting in a cut in demand, of what we are told by the forecasters, is anywhere between 20 and 30 million barrels per day (mmbd). The OPEC + + agreement is to cut somewhere between 10 - 15 mmbd.

That still leaves a sizeable surplus of production over demand.

Refineries typically hold between 10 - 15 days storage of crude oil and 20 - 30 days storage of products, i.e. about a month's offtake. The global independent and government-owned storage capacity is reckoned to be around 1.7 billion barrels. If we add about 50 VLCC's to this, we will achieve a further 125 million barrels. So, let us be generous and call the total available land-based and floating storage around 2.0 billion barrels, of which about 80% would be in constant use. Therefore, the shock stock capability of the independent sector would be about 465 million barrels. Made up of 340 million land-based storage and 125 million in floating storage.

Refining capacity globally is around 100 mmbd. Again, making a broad assumption that the refineries had a base load working stock of 60% of nominal capacity. Then, based on 30 days storage, they can add a further 120 million barrels to go to tank tops.

This gives us a total shock absorption capacity of 585 million barrels.

If the production is cut by only 10 mmbd, then we will be over producing by anything up to 10 mmbd anyway.

Now we can paint a few scenarios.

The demand reduction projections all seem to cluster around the 20 mmbd. Taking this figure and assuming the OPEC ++ do achieve a cut of 10 mmbd, which is never certain, then the world's stock shock absorber capacity will be filled within 60 days. We have already had three to four weeks of lockdown at a production rate of 100 mmbd. The chart below shows how we are progressing:

It can readily be seen that we exceed

STOCK AND PRODUCTION SURPLUSES IN 2020 COVID-19 SCENARIOS

		Low case	Medium Case	High Case
Production surplus	mmbd	5	10	15
Stock shock absorbers	million bbls	585	585	585
Days to fill tanks		117	58.5	39

Figure 01 The speed of stock building

our buffers prior to end of April and that thereafter cuts will be imposed on the oil producers by virtue of an inability to lift the oil produced. This may come about by a declaration of Force Majeure by the refineries or the traders supplying them. This could also happen by more and more tankers being taken over as floating storage, leaving very few to transport oil.

So, what will the world look like when we come out of the long lockdown that some governments are predicting?

I doubt that aviation demand will take off that quickly and therefore the biggest mover is likely to be gasoline and diesel, as most people will not want to travel on packed commuter trains and buses if they could possibly avoid it.

The stock surplus generated will need to be absorbed by the refineries before they start their replenishment programme. This is what happened in 1974 and it took over a year before some semblance of balance was restored. This implies a contango market structure being maintained for at least 12 months and possibly longer.

Storage companies will be seen as cash cows again and their profitability will attract infrastructure funds to return to the market. Some of the deals may be from one infrastructure fund to another as some funds reach their exit term mandates.

Bunker fuel supply business will continue to be seen as a profitable area, now that VLSFO is no longer considered a surplus by-product and the majors could return to this market in aggressive takeovers.

The refining system will remain depressed, as margins will continue to be pressurised by the surplus stock position and although the price of the crude oil held in stock will be cheap, competition will keep margins very tight.

These are a revisiting of the scenario that we saw in 1974 and there is no reason why it should not play out in a similar fashion. The ingenuity of the oil industry to overcome such shocks has been tested time and time again and it has always proven up to the challenge.

I see no reason why it should not succeed in solving this problem yet again.

SUPPLY / DEMAND		MMBD	MARCH	APRIL	MAY
Production	March	100	100		
	April 1-13	100		100	
	April 13-30	90		90	
	May	85			85
Demand	March	80	80		
	April	80		80	
	May	90			90
Stock build		mmbd	20	14.3	-5
		million bbls	620	430	-155
Cumulative stock build		**million bbls**		**1050**	**895**

Figure 02 The stock build scenario