

THE COVID-crisis



Stephen B. Harrison, Nexant Energy & Chemicals Advisory, Germany, considers the COVID-crash's potential implications for the Asia Pacific region.

On 20 April 2020, negative pricing for the May WTI futures contract sent a shockwave through the energy sector. Crude oil pricing structures have evolved over decades and have served the industry well during periods where supply has had ample time to adjust to long-term demand trends. They were never designed to work in a period of demand shock, such as that experienced worldwide in the first four months of 2020.





Figure 1. South China Sea drilling rig and support vessels.



Figure 2. Tazhong oilfield in Xinjiang, China.



Figure 3. Oilfield support vessel in Labuan, Malaysia.



Figure 4. Oil tanker in Singapore harbour.

For many Asian countries, which are major consumers and importers of crude oil, the COVID-crash might appear to be a once-in-a-lifetime buying opportunity to fill their strategic reserves and stock up before prices resume an uptrend. However, as any commodity trader will know, picking the low point in the market is never easy and over-committing to deliveries for which there is no storage or refining capacity is a high-risk game. Who would ever have expected that crude oil production and ownership could become a waste disposal problem?

What is the root cause of the COVID-crash?

Debates may rage for years about whether the market pricing structure was simply not set up for this 'black swan' event or whether geopolitical tensions also played a role in the COVID-crash. Could oil producers have cut crude production deeper and faster? Should they have reacted sooner to early warning indications from Chinese economic data that additional international coronavirus lockdowns would cause a more significant demand slump on a global scale? Incredulity, curiosity, a desire to analyse, the need to understand and a willingness to learn will all lead to the question: 'Why did the oil price crash so dramatically?'

The simple answer is that supply and demand very quickly fell out of balance. There was an abrupt reduction in aviation, maritime, rail and road travel – causing a waterfall decline in refined products demand. Chemicals and plastics plants cut back their processing volumes, as a result of falling demand, as production lines in industries such as automobiles and textiles shut down – pulling through fewer oil-derived petrochemical products. Electricity production slumped in line with the drop in industrial activity; fuel oil demand for power generation dropped accordingly. However, in Asia, the Pacific, the Americas, Africa, Europe and the Middle East, indeed all around the world, millions of barrels of crude more than the world could consume kept on being produced per day.

Will land-locked producers be hit hardest by the COVID-crash?

In any supply chain, storage between two processing steps is the buffer that absorbs short-term swings in demand. Static storage in the crude supply chain is fixed. However, redundant oil tankers can be used as temporary additional storage capacity. For offshore upstream operations, such as Malaysian rigs in the South China Sea or Australian production in the Bonaparte and Carnarvon Basins in the Indian Ocean, the use of tankers to store excess crude is conceivable.

This is not the case for Asia's land-locked producers. Shuttering wells is expensive, but for onshore producers that outcome may come sooner than for offshore and nearshore producers. On the other hand, production cuts in other regions may redress the supply and demand balance and trigger an upward move in local demand and pricing just in time to save the day. Waiting for this to happen is a high-risk strategy based on hope however, and hope is not always the best decision-making tool. With this in mind, it is expected that land-locked producers with limited access to storage will be the first in line to shutter up their wells. Asia seems to be weathering the storm at present, but at the time of writing the US rig count has fallen 40% from 650 to 380.

Oil storage construction investment ahead?

Pricing volatility can be a reason to minimise inventory to reduce the risk of getting caught on the wrong side of a fall in price. On the other hand, security of supply and the temptation to 'buy the dip' are reasons to invest in inventory and increase storage capacity.

Furthermore, the International Energy Agency (IEA) advocates that member nations should hold 90 days of supply based on the import volumes of the previous year.

Looking around Asia, IEA members such as Japan and South Korea have approximately twice the required level of strategic storage. On the other hand, Australia falls far short of this target and New Zealand's strategic reserves are very close to, but below, the required level. When reflecting on the COVID-crash, will some nations rethink their requirements for strategic crude oil reserves and invest in additional strategic storage to align with the IEA's requirements? This might appear to be a 'downstream' question, but the answer will also be relevant to upstream operators. The COVID-crash has reminded the industry of one fundamental: upstream, downstream and demand are intrinsically connected and when demand evaporates, the upstream sector will quickly feel the pain through the domino effect.

The end of an era for Asia Pacific oil and gas exploration?

Within only a few months of the word 'coronavirus' entering common parlance and only a few days of the crude price crash taking WTI into negative territory for the first time in history, it was already expected that one third of the exploration well projects in the Asia Pacific region will be put on hold. Cash reserves in the upstream sector in recent months have only been at moderate levels and with grave concerns over sustained liquidity at the current crude price, discretionary spend and capital projects will be cut quickly and deeply.

In comparison to the Middle East and Russia, production costs in the region are high and less than 20% of the current slate of Asia Pacific crude oil exploration and production projects would

break even at less than US\$35/bbl. This price has frequently been used as the 'low' case in recent investment planning sensitivity analysis. A lesson from the COVID-crash might be that investment decisions with a 'lower' US\$20/bbl case need to be reviewed. That pricing level would certainly usher in the end of an era for oil and gas exploration and new production investment projects in the Asia Pacific region. Furthermore, if global energy demand moves away from crude oil in a quest for decarbonisation or to diversify away from this volatile commodity, prolonged oversupply – which will threaten additional upstream capacity investments in any region – can be expected.

Accelerating a move in the energy mix?

As a stark reminder that Asia has a mix of energy options, in early April 2020 Sinopec announced the construction of five additional LNG storage tanks and a new tanker berth at their Tianjin terminal in China. Worldwide, natural gas and renewables have overtaken coal as the top modes of electricity production in OECD countries. The crash in crude oil pricing might seem like an excellent buying opportunity, but it will also send nervous shudders around the globe, reinforcing the commodity's reputation for volatile pricing. What goes down with a bump can bounce back up with a shock.

When reflecting on the lessons of the COVID-crash, long-term planners may prefer the stability of local production in favour of international supply chains. Diversity will be highly valued in national energy policies. Investment in hydrogen mobility may be pulled forward so as to decarbonise and move away from fossil fuels altogether. COVID-19 countermeasures threw a boulder into the water. The initial tidal wave is obvious to see but the second- and third-degree ripples will come ashore in many unpredictable locations, sometimes with surprising effects.



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Delay on the road to greater Asia Pacific energy self-sufficiency?

On 25 April, Petronas announced that production had not been shut down and that 18 offshore rigs in Malaysian waters were operational. However, at the same time it confirmed that some projects were being delayed due to the Movement Control Order imposed by the Malaysian government to curb the spread of the coronavirus. Additionally, they confirmed delays will inevitably result from supply chain disruption as equipment deliveries from other global locations are deferred due to lockdowns around the globe. It would be possible to speculate that project delays for these 'social distancing' reasons may last months or perhaps even extend to a year.

Coronavirus-related delays are not confined to the Asia Pacific region. On 26 April, Sipchem announced a 6-month extension in their negotiations with Linde to develop hydrogen and syngas supplies to their operations in Jubail, Saudi Arabia. The reason given was that travel restrictions were leading to delays in the site visits required for the due diligence process. Whilst these examples are short-term issues, the long-term implications for Asia's journey towards greater energy self-sufficiency may be much further reaching if policy decisions, energy sector investment and the structural use of energy shifts away from crude to other energy vectors.

Perilous path for credit ratings, bond yields and M&A activity in the Asia Pacific upstream sector?

The price of crude may have fallen, but the cost of borrowing for upstream operators and exploration will rise. Numerous corporate debt defaults in the US are expected as the cost of production in many locations there now exceeds the value of the oil. Unprofitable operations can be sustained for only a short period of time and bankruptcy filings are likely to accelerate. Tight oil in the US is one of

the most expensive crude sources in production globally. However, at current prices, some Asia Pacific upstream operations are also pumping crude at a higher marginal cost than the product value.

As lenders rate upstream investments with increased risk, project finance due diligence will need to closely scrutinise the viability and sensitivities of investments as they come for a final investment decision (FID). Credit ratings in the upstream sector would be down rated and corporate bond yields would need to rise to offset the risk premium.

As upstream companies deplete their cash reserves and approach insolvency, they may become vulnerable as M&A targets. However, for every seller there must be a buyer and in this market the buy side will need to have belief in the long-term viability of the business model. They will also need cash or credit to acquire and then rebuild the company. The need for rigorous technical and commercial due diligence during the M&A process will be high, even if there is pressure to move quickly.

Conclusion

The COVID-crash has led to unprecedented levels of volatility and uncertainty in the upstream sector. The tidal wave, and subsequent ripples will be felt in midstream, downstream, petrochemical and storage operations. There will be a need to remodel feasibility studies under new sensitivity scenarios. Project finance will rely on rigorous independent support to arrive at appropriate risk ratings. Potential M&A transactions will call for careful review to sieve genuine opportunities from value-traps. Governmental energy policies and infrastructure investments may diversify towards renewables and hydrogen. In support of the above cases, Nexant Energy & Chemicals Advisory has the required expertise and global reach to engage in consulting projects and provide off-the shelf reports that have been adjusted for the latest crude pricing corridors. ■



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