



## Potential Strategic Implications of the Coronavirus for the Global Chemical Industry

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Like most industries, the global chemical industry is currently strongly affected by the outbreak of Covid-19. The effects were initially visible in China as the coronavirus spread there prior to the United States and Europe. China's chemical industry is gradually returning to a more normal situation as the number of infections there has declined, however, the impact on the chemical industry in other countries is still increasing, while they

take precautions to limit exposure.

Disruptions in chemical production, particularly those produced in batch processes, have created negative repercussions. Other issues are a consequence of decreased demand from downstream industries affected by the coronavirus. To give a few examples from China, the operating rates for PTA decreased from 92% at the end of January to 71% in February and only slowly recovered to 75%

in March. Prices of chemicals, such as paracetamol, vitamins and penicillin, rapidly increased. As plastics exports from China decreased by 16% during the first two months of 2020 compared to the same period last year, plastics-related companies adjusted by lowering their capacity utilization. Specifically, plastics compounder China XD reported a capacity utilization of only 20% at the end of March, though it expects an increase to 70%





by the end of April and a full utilization rate by the end of May.

These are short-term effects that will likely affect European and US chemical companies in a similar manner. To some extent, they may be dismissed as the unforeseeable consequences of a typical Black Swan event. However, we believe that the coronavirus will also have a long-term impact on global chemical companies, as it has highlighted some of the issues embedded in the current status. The virus outbreak will promote trends that in turn will require an adaptation of chemical companies' strategies. In particular, three aspects seem to be highly relevant: Consolidation, Risk Reduction and Demand Shift.

## Consolidation

Globally, the chemical industry has been consolidating for a number of years now, reflecting the relatively mature status of the industry. In the past 2-3 years, this consolidation has even started to affect the number of chemical companies in China, which peaked in 2015 but has since declined by approximately 4% per year, partly driven by tightened environmental regulation. However, the coronavirus will likely lead to industry consolidation on a much larger scale. Many small and financially weak companies will struggle to stay afloat in

the next few months as sales and production decline substantially. Chemical suppliers focusing on particularly hard-hit industries, such as automotive and textile, are the most susceptible, but as overall economic activity declines, all chemicals producers will be affected to some extent. What does this mean for the strategy of chemical companies? Weak, smaller companies will need to search for stronger partners, take on more debt, and even put themselves up for sale in order to survive the crisis. China already is experiencing an upsurge in inquiries from Western chemical companies as Chinese chemical companies, which domestically are already getting back to business, are now viewed as potential buyers for struggling Western firms. On the other hand, chemical companies with strong financial position may exploit the current low valuations and precarious financial standing of smaller competitors for opportunistic growth through acquisition to acquire them. Research on previous crises generally shows that the strongest firms are much less affected by crises and can often improve their overall industry standing throughout such a period. It is reasonable to expect this to also hold true for the chemical industry. Of course, even if a strong chemical company does not acquire any competitors, it will still benefit from the consolidation of the market as the inevitable closure of some of the weakest players allows

for the redistribution of shares among the remaining players.

To give an example, in China, banks have suspended the credit lines of some independent oil refineries amid concerns based upon defaults due to the coronavirus and the resulting lower sales. At least three independent refiners have had US\$600 million in credit lines suspended by international banks, making them highly vulnerable to a fire sale or going out of business altogether. The largest players and the state-owned refineries may eventually benefit from the trouble of these independent refineries.

## Risk reduction

Since China started tightening its environmental regulation as a consequence of the 13th Five-Year Plan (2016-2020), global supply chains have suffered occasional disruptions, such as in the case of dyes. When China's top dyestuff maker Hubei Chuyuan, with a 30% global market share in some dyes, was shut down for environmental reasons in 2016, prices of some materials such as H-acid rose by several hundred percent.

Disruptions due to the coronavirus affect a much larger number of chemicals, which are of much higher importance than dyes. For example, in 2019, the proportion of US imports of medicines that came from China



included 95 percent of ibuprofen, 91 percent of hydrocortisone, 70 percent of paracetamol, 40 to 45 percent of penicillin, and 40 percent of heparin, according to data from the US Commerce Department. For agrochemicals, Indian media warned that sales of some Indian companies could be at risk if the virus-induced supply delays of agrochemicals from China persisted.

Even before the coronavirus outbreak, many chemical companies tried to reduce their reliance on sourcing from a single country (which in most cases happens to be China). For example, in a bid to reduce dependency, a German producer of specialty chemicals has reported frequent enquiries from customers for chemicals now sourced from China. Indian specialty chemicals companies are also positioning themselves as alternatives to China. Ironically, given that the situation in China is already improving, it now seems ill-advised to focus solely on avoiding China as a source. However, the basic concept of reducing a high reliance on a single source (be it a company or a whole country) still holds true. Global chemical companies will need to widen their network of suppliers, and it is likely that annual reports of chemical companies covering the year 2020 will have extensive sections on reducing supplier risk in the case of unforeseen events, such as the coronavirus pandemic. While many of the

past efforts to reduce the risk of overreliance on individual suppliers or countries had negligible impact due to the associated cost increases, the current situation may make companies much more willing to accept these costs.

## Demand shift

Perhaps the most interesting strategic question for chemical companies is whether the coronavirus will lead to a long-term shift in demand. Short-term shifts are likely, as governments try to alleviate the negative economic effect of the coronavirus outbreak. For example, in a bid to support the industry in the face of the virus, China has recently extended subsidies and tax breaks for new-energy vehicle purchases for two years – good news for chemicals suppliers for these products. China also announced that it will modify the environmental supervision of companies to help resume production that was disrupted by the coronavirus epidemic, giving firms more time to rectify environmental problems (though emphasizing that overall standards will not be lowered). And China increased export tax rebates on many chemical products, including a 13% export tax rebate on ethylene, propylene and ethylene glycol, to ease the pressure on companies hit by the coronavirus outbreak.

The chemical industries in other countries will presumably benefit from similar stimulus

measures, whether aimed directly at the industry itself or at important customer segments. In the US, \$2 trillion in stimulus has already been approved to bolster the economy; providing aid that will positively impact much of the economy and prevent demand from plummeting to levels not seen since 2008.

However, these short-term shifts are not likely to be highly relevant for long-term strategy. Other issues may turn out to be more long-lasting. For example, single-use plastics are currently being promoted as highly hygienic materials, overriding some sustainability concerns. Will public perception revert as the coronavirus eventually subsides, or will there be a long-term preference for single-use materials? Similarly, given the acute severity of the virus, will global warming ever be regarded as such a significant life-and-death issue by a substantial proportion of the population once this pandemic subsides? There are already several positive signs of reduced air pollution in many regions of the world – what affect will this have on demand for cars, plastics, or other chemical based products? Will the focus be much more on rebuilding the economy to pre-virus status, with much less desire for a fundamental shift? The right strategy for many chemical companies will certainly depend upon gauging the right answers to these questions. ■