



ICRA

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Covid-19 opens up outsourcing opportunities for chemical sector; margin pressure to remain for petrochemicals



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In December 2019, the coronavirus or the Covid-19 outbreak occurred in Wuhan, the Hubei province of China. Given the lethal nature of the virus, the countries resorted to travel restrictions, quarantines and lockdowns as it spread. As of now the Covid-19 pandemic has spread to 210 countries and territories with several nations such as the United Kingdom, Australia, Denmark, Ireland, Spain, Germany, Portugal, France, and India having announced lockdowns.

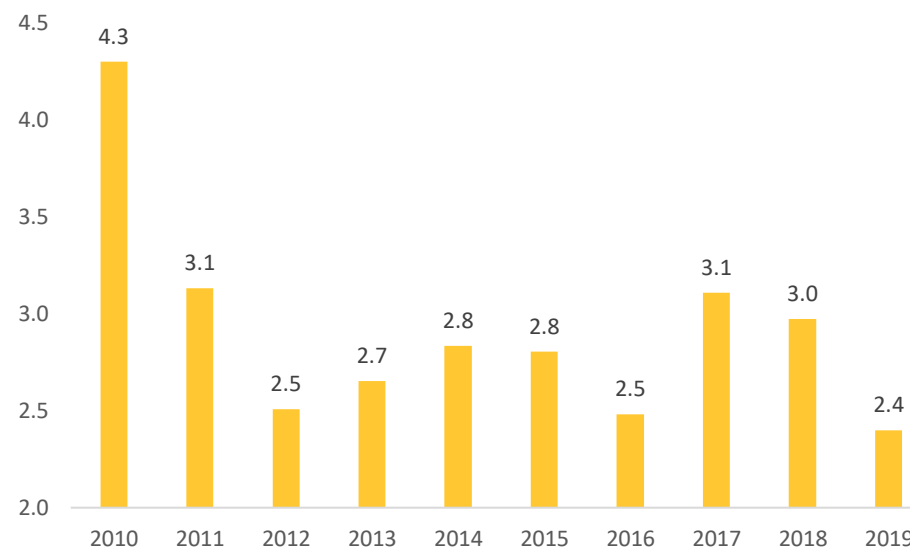
Impact on economy:

The coronavirus crisis is affecting a wide range of industries and the economy, owing to restrictions on the mobility of people and goods. The lockdowns have adversely affected the demand for chemicals and petrochemicals owing to:

- **Decline in consumption:** As people remain home-bound and refrain from non-essential purchases, the demand for several products has disappeared. With venturing out for non-essential reasons attracting large cash and/or other penal provisions under law, the option for non-essential purchases has been severely curtailed.
- **Government-mandated shutdown of establishments:** The countywide or regional lockdowns have also resulted in the shutting down of manufacturing plants, supply chains and distribution networks for all but essential services, leading to a slump in demand for products and commodities.

This has morphed into a full-blown shock simultaneously impeding supply and demand, leading to a historical drop in industrial production and retail sales. The coronavirus shock is more severe than the Great Financial Crisis of 2007–08, as it has hit households, businesses, financial institutions, and markets all at the same time. The global growth is expected to turn sharply negative in 2020 as the world bears the worst economic fallout since the Great Depression.

Exhibit 1: Global GDP Growth (%)



Source: World Bank, ICRA research

Impact to vary across segments:

The impact on petrochemicals and chemicals will differ across value chains and end-use segments. Packaging, especially food packaging, sanitary and medical applications, are seeing an uplift. This is due to stockpiling, an increase in delivery services, and the high healthcare-focused activities. Other major polymer-consuming sectors, such as automotive and construction, have been severely impacted. An example would be synthetic rubbers (such as SBR, PBR etc) which derive a bulk of their demand from the automobile sector. With the automobile industry severely hit and the lockdowns and travel restrictions idling bus and airline fleets, synthetic rubber consumption is expected to nosedive for both new and replacement demand.

Besides, the Covid-19 crisis will slow investment as companies preserve cash and are more disciplined in undertaking capex. Existing projects under construction will be delayed due to labour and mobility restrictions even as decisions on new projects will be postponed owing to a dip in consumption and a clouded outlook.

Impact on petrochemicals:

The fall in crude oil prices has had a significant impact on the global petrochemicals industry. A significant amount of new capacity had come on line leading to an over capacity scenario. With the outbreak of coronavirus and the consequent slump in demand, the over-capacity situation has exacerbated. However, the sharp decline in crude oil prices has significantly altered the ethylene cost curve. While earlier, natural gas and ethane-based crackers enjoyed a large cost advantage vis-a-vis mixed feed or naphtha-based crackers, the competitiveness of the latter has improved owing to the decline in crude oil and consequently naphtha/LPG prices. Accordingly, naphtha/LPG-based crackers are beneficiaries of a lower crude oil price environment. Additionally, coal to olefins (CTO) and methanol to olefins (MTO) remain uncompetitive in a low crude oil price scenario as their feedstocks are unimpacted by crude price decline. Accordingly, the competitiveness of US petrochemicals industry has declined even as the CTO/MTO-based plants of China are posting negative margins. However, about 15 million tonne of new global polyolefin capacity addition is expected globally in 2020 which will lead to lower operating rates and profitability. As of now, run cuts in refineries are reducing the availability of feedstock (such as LPG and naphtha) for the petrochemical industry, just as the lockdowns have reduced demand. The Indian petrochemicals industry, which is primarily naphtha-based, is a key beneficiary as tolling margins of ethylene crackers have improved. Whilst prices of various petrochemicals have declined for Indian manufacturers, the decline in prices of feedstocks has been higher, thereby improving the spreads. However, some plants in the country have shut down owing to evacuation constraints even as some others are operating at low capacity utilisations.

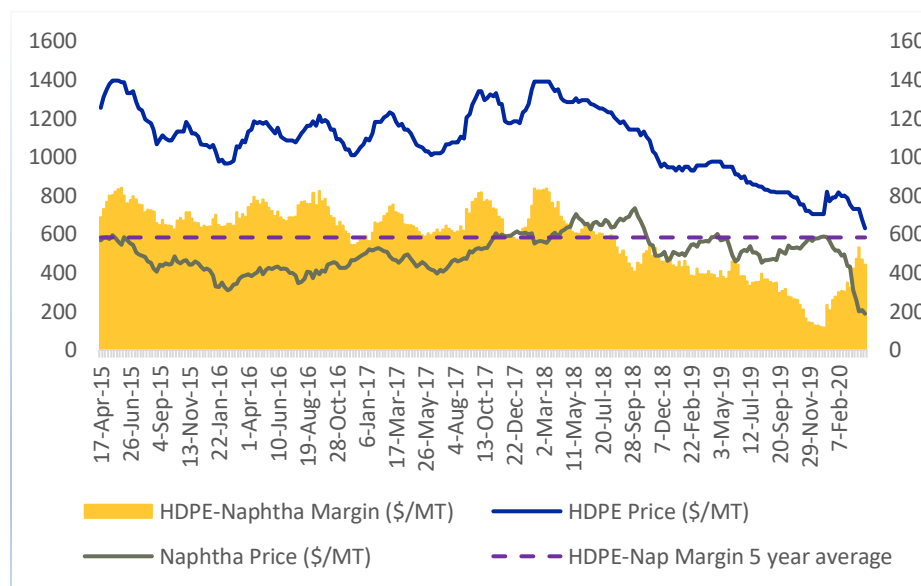
Exhibit 2: Brent Crude Oil Price Trend (\$/bbl)



Source: Bloomberg, ICRA research

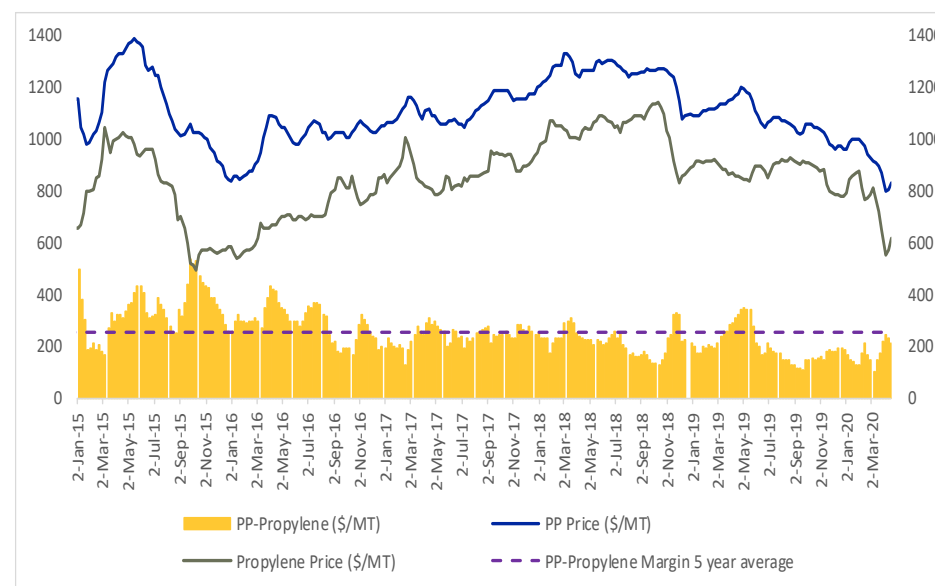
Even though prices of petrochemicals are expected to further decline, the demand is expected to be muted in FY2021 owing to the pandemic. Nevertheless, Indian manufacturers are expected to maintain high capacity utilisation rates of products for which the country is a net importer.

Exhibit 3: Naphtha, HDPE Price Trend and Spread (\$/bbl)



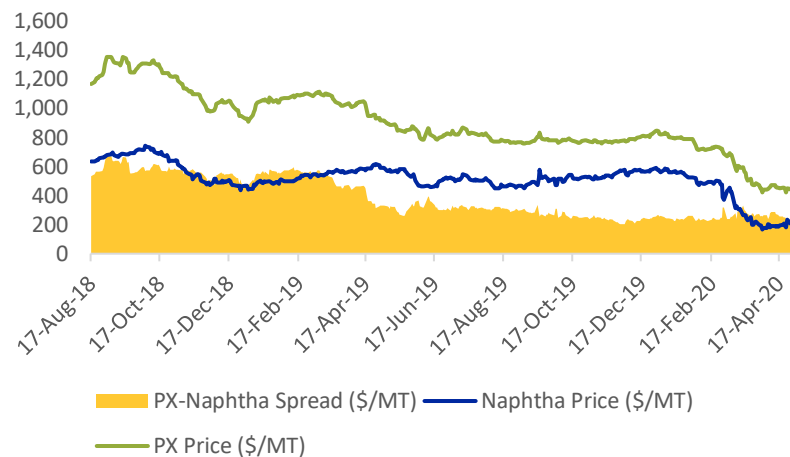
Source: Bloomberg, ICRA research

Exhibit 4: Polypropylene, Propylene Price Trend and Spread (\$/bbl)

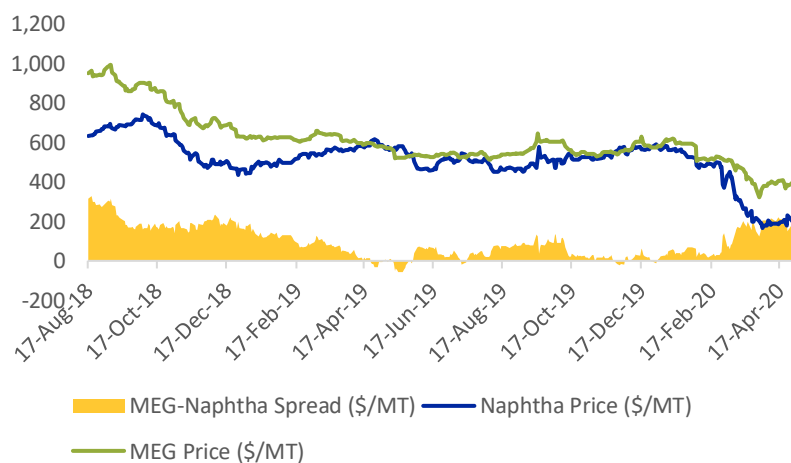


Source: Bloomberg, ICRA research

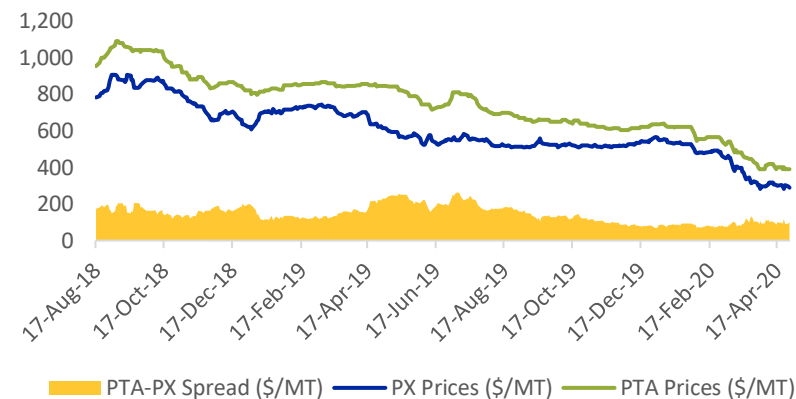
Akin to ethylene cracker margins, the margins for the polyester chain have also improved as several plants have shut down due to lockdowns globally. Additionally, Hubei and Central China being important manufacturing bases for the textile industry have been impacted and only part of their manufacturing capacities have resumed production, has also aided margins.

Exhibit 5: Naphtha, PX Price Trend and Spread (\$/bbl)

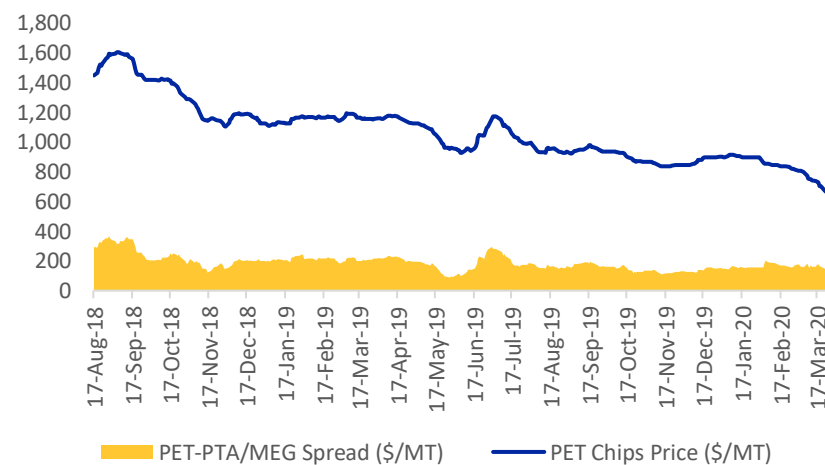
Source: Emerging Textiles, ICRA Research

Exhibit 7: Naphtha, MEG Price Trend and Spread (\$/bbl)

Source: Emerging Textiles, ICRA Research

Exhibit 6: PX, PTA Price Trend and Spread (\$/bbl)

Source: Emerging Textiles, ICRA Research

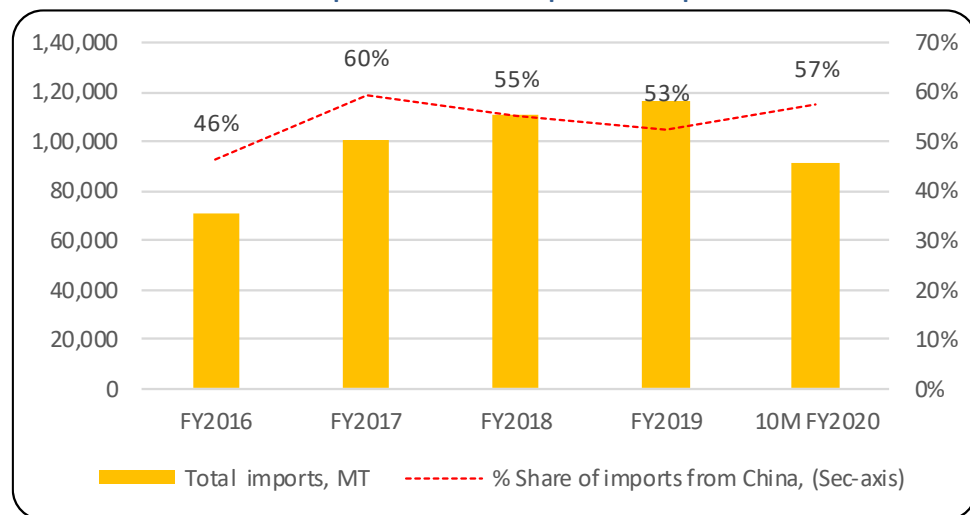
Exhibit 8: PET Price Trend and PET-PTA/MEG Spread (\$/bbl)

Source: Emerging Textiles, ICRA Research

Covid-19 poses marginal headwinds for Indian agrochemical space as Government classifies agrochemicals under essential commodities

With the pesticides getting placed under the essential commodities category, the functioning of the industry has been close to business as usual than other sectors facing plant shutdowns in the country due to the Covid-19 lockdown. Initially, several agrochemical players had to shut down their operations owing to the Covid-19 lockdown. However, later the production was resumed with regulatory support placing agrochemicals under essential commodities from April 20, 2020, though the capacity utilisation remains lower than the normal times. Usually,

Exhibit 9: Share of Chinese imports in the overall pesticide imports in India



Source: CMIE, ICRA Research

Acephate, Cartap, Buprofezin etc. where 80% of the demand is met through imports. For a few other pesticides like Imidacloprid, Imzathapyr, Acetamiprid etc. import dependence is to the tune of 40%-50%. Usually, pesticide production in China remains low in the month of January every year due to the Chinese New Year holidays. As a result, the Indian players stock inventory for the upcoming kharif season well in advance. Since a major portion of the Covid-19 lockdown in China coincided with the Chinese New Year, the raw material inventory being held by the Indian companies and the production of agrochemicals in India remained unaffected in Q4 FY2020. However various steps taken by the government of China and India for containment of the coronavirus has resulted in disruption of supply chain logistics. Nevertheless, with easing of the lockdown in China and the Chinese government offering export rebates to pesticide manufacturers, the production levels in China have reached around 70% of the normal production levels. However, due to the constraints on movement of the material to and from ports, agrochemical prices have witnessed an increase of 10-15%. For the upcoming kharif season, agrochemical players are not expected to witness any shortage of raw materials. With the GoI also providing relaxations in the lockdown and taking steps to bring the economy back on track, ICRA expects the logistics bottlenecks to ease and the agrochemical companies to be able to procure raw material for the upcoming rabi season. In the current scenario, the integrated agrochemical manufacturers will be major beneficiaries with standalone formulation players witnessing some degree of uncertainty in procuring raw materials. However, with the situation in China achieving near normalisation and crude oil prices touching multi-year lows, input

March and April are the placement months for the pesticides. Since restrictions related to manufacturing and movement of material was applicable on the agrochemical sector as well, the product placement in the market is expected to get delayed by 20-25 days. However, since the application of the agrochemicals begins by end-May and continues till September, the product offtake is not expected to be impacted. Additionally, the domestic demand this year should be supported by expectations of a near normal monsoon and focus of the GoI in ensuring normal functioning of the agri-economy to ensure food security. While domestic demand is expected to remain stable, exports are expected to witness headwinds owing to challenges related to port handling and international logistics. Indian agrochemical manufacturers with international facilities should be able to maintain their international market as well, as globally governments focus on keeping the agricultural activities intact.

Indian agrochemical industry imports a major portion of its raw material requirements from Chinese technicals manufacturers. The share of Chinese imports in the overall pesticides imported in India remained significantly high at ~57% in 10M FY2020. Notably, Indian players are highly dependent on Chinese manufacturers for a few pesticides like

costs are not expected to witness any major upward movement in the near term, which is a positive for the Indian agrochemical players. Thus, the agrochemical industry is expected to remain largely unaffected by the impact of Covid-19.

Covid-19 opens up opportunities for Indian specialty chemical manufacturers as global majors look at reducing reliance on China

Besides agrochemicals, India has been growing its share of specialty chemical exports at around 19% CAGR since CY2015 till CY2019, enabled by a competitive cost structure and growing disruption in chemical supplies from China. In the initial phase of the Covid-19 lockdown in India, several specialty chemical players had to shut down their manufacturing plants barring production of chemicals classified under essential commodities. The production, however, is expected to resume soon as the GoI has relaxed various norms related to the lockdown, though the production levels are expected to remain subdued given the labour availability issues and limited demand as the economy limps back to recovery. Certain specialty chemicals which are part of the value chain of pharmaceuticals, medical equipment & supplies, food products etc. should witness faster recovery than specialty chemicals that are part of the value chain of non-essential items. Additionally, the integrated specialty chemicals manufacturers should be able to protect their profitability to a much larger extent as compared to non-integrated manufacturers.

The Chinese chemicals industry has witnessed several disruptions since the last couple of years, starting with the pollution-related clampdown that began in 2015 and the recent Covid-19 issues. Such disruptions have resulted in price and supply volatilities in several specialty chemicals. Owing to the over-dependence of global chemical players on Chinese supplies (Chinese specialty exports stand at around \$175 billion in CY2019), the disruptions have sent global players scrambling for alternate supply sources several times. As a result, several Indian players have witnessed order inflows from global chemical players to meet the short-term supply disruptions from China. On the global front, several large multi-national players have started looking at alternative manufacturing bases and reduce their reliance on Chinese manufacturers. The Japanese government earmarked \$2.2 billion in an economic stimulus to provide relief to its manufacturers to shift manufacturing facilities out of China, with highly value-added product manufacturing to be shifted back to Japan and other products to be shifted elsewhere in South Asia. Additionally, as per media reports the US government has also indicated its support to the US companies looking to shift their base from China to India. Thus, Covid-19 has presented an opportunity to the Indian chemical sector to attract investment and also grow their export portfolio.

Exhibit 10: Trend in the caustic soda price, South-east Asia CFR, \$/MT



Source: CMIE, ICRA Research

Caustic soda players witnessing headwinds due to weak demand; prices recover marginally in May 2020 driven by weak chlorine demand globally

Caustic soda players in India have been impacted by the Covid-19 lockdowns causing the entire domestic capacity to shut down. While the production has restarted, it remains well below the capacity utilisation levels in normal times. With most of the manufacturing industries remaining shut since the lockdown came into effect, the demand for caustic

soda also declined significantly, resulting in the weakening of the caustic soda prices. Caustic soda prices had witnessed a significant correction in India in FY2020 owing to the influx of imported caustic soda and commissioning of new capacities in India. Currently, caustic soda prices are steady globally as lower demand for chlorine products in the US and Europe has resulted in reduced production. In India the demand is expected to remain weak in the near to medium term as the aluminum industry is sitting on a huge stock of inventory and the paper & pulp industry outlook remains subdued. While several plants have started operations, the capacity utilisation remains low as the demand remains weak. With the construction activity expected to remain weak, the Poly-Vinyl Chloride (PVC) demand is expected to remain weak as well. Thus, chlorine offtake may witness a significant decline and negatively impact electro-chemical unit (ECU) realisations. However, with global production expected to weaken, the international caustic soda prices are expected to remain stable and thus the overall ECU realisations should remain stable offsetting the impact of the chlorine price decline. Caustic soda players integrated into production of downstream chlorine products should be able to better withstand the economic downturn and have more stable ECU realisations in the near to medium term.

Dyes & pigments

In case of dyes and pigments, since globally, both India and China are the major suppliers of dye intermediates, initially post the lockdown in China, some demand shifted from China to India. Dye intermediate players could have benefitted from the situation on volume as well as pricing fronts, especially those which are backward-integrated with low dependence on China for raw materials. However, with the imposition of the lockdown in India, most of these plants have been shut down. More importantly, most of the user industries – textiles, leather, paints, etc. are seeing an unprecedented drop in demand due to lockdown and cut in discretionary spending. Even when the lockdown ends, demand would recover only gradually. While costs could also decline, given the softer crude price environment and relatively weak demand in both domestic as well as international markets, prices could see volatility over the next 6-12 months as plants in India and China operate at sub-optimal capacity utilisation levels.

Impact on the credit profile of Indian petrochemical and chemical players:

The plants of most petrochemical and chemical players were shut down due to lockdowns and logistic issues, owing to which cash accruals are expected to decline significantly in FY2021, driven by lower production, even though margins have improved or held steady. However, barring companies that were incurring large capex most players have low net debt owing to healthy margins in the past few years. Additionally, the chemical segment may be a key beneficiary of outsourcing opportunities as companies reduce dependence on China. Most chemical companies had already been incurring capex in setting up additional lines or setting up new plants as environmental concerns in China shifted production and outsourcing to India. The Covid-19 pandemic is expected to further accelerate the shift. Nevertheless, going forward companies are expected to be cautious in incurring capex as the world economy heads for a recession. Additionally, chemical companies are typically more diversified across products and would be better placed in weathering the slowdown. Overall, while the credit profile of the Indian petrochemical and chemical industry should see weakening in the near term, players with diversified business profile and conservatively funded balance sheets, should be able to withstand the downturn with less impact on their credit profile.

ABOUT ICRA

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