Petrochemical Industry Outlook

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PEFINDO anticipates that the petrochemical companies in Indonesia will continue to face key credit risks such as fluctuating macroeconomic environment, high reliance on import feedstock, ability to maintain profitability amidst high cost of inputs, and substantial investment costs to produce more specialized products. We view the domestic profile, which has economic resilience against global recession threat, combined with various end-use industries from downstream petrochemical products should partly mitigate those key credit risks. This rationale concludes our view that the outlook for the domestic petrochemical industry in the second half of 2023 to the next 18 months (2H2023-2024) to remain stable. The industry risk profile is considered as intermediate due to high barrier to entry as it is a capital-intensive industry, with low-to-medium risk for the substitute products. We also view the high cyclicality as petrochemical industry is highly exposed to the macroeconomic condition.

Growth and stability

Southeast Asia region is projected to experience stronger petrochemical industry growth in the medium to long term compared to other regions on the rationale of access to large markets in terms of population with expanding economy, improved infrastructures, and large oil and gas resources developed. We also observe that the presence of foreign investment in Indonesia's petrochemical industry nowadays indicates that the country has a large potential market. PEFINDO expects the domestic petrochemical industry growth in 2H2023-2024 to be driven by several factors including (i) business activities recovery post pandemic, especially when the pandemic status in Indonesia has been officially lifted in June 2023; (ii) reopening of China's economic in March 2023 as the largest producer and consumer of petrochemicals, which is expected to drive global demand through reopening of factories and ports; (iii) growing plastic consumption for various uses with less substitute products. Indonesia's annual plastic consumption is around 22.5 kg per capita, lower than consumption in other Southeast Asian countries (Malaysia, Singapore, and Thailand all have rates of more than 60 kg per capita) [1].

According to Nexant, a professional consultant in the field of chemicals, Indonesia's demand for polyethylene, polypropylene, styrene monomer, and butadiene in 2022-2035 will book a compound annual growth rate (CAGR) of around 5%-6%[2], higher than the rest of world. Most of the demand will be absorbed by packaging usage, electronics, construction, and automotive manufacturing.

Aside from expecting recovery in the industry growth, we anticipate that the uncertainty in macroeconomic environment will be our key concern as petrochemical industry has high correlation and sensitivity to gross domestic products (GDP) growth. High inflation may adversely impact softening the demand, especially for the end-user products related to petrochemicals that will pressure GDP. We also anticipate any further supply chain disruptions and rising geopolitical tensions will negatively affect the downstream customers including the auto assembly and electronic industries.

Cost of inputs challenges with high reliance on imports

PEFINDO views that the Indonesian petrochemical production has high reliance on imported raw materials (feedstock and preliminary petrochemical products). Domestic production is much lower compared to the demand, as reflected by the nation trade deficit value of petrochemical products, which reached almost USD1.0 billion in 2022, with exports of USD228.3 million and imports of USD1.2 billion[3]. Xylenes, ethylene, butadiene, and toluene contribute the most deficit in the nation's trade balance. These products are inputs for producing intermediary to downstream petrochemical products. Meanwhile, for the upstream petrochemical products, the prices of naphtha and condensates are linked to the fuel commodity prices.

Despite the downward trend of oil and gas prices from their peaks in the middle of 2022, we anticipate that a sustained lower oil and gas price will be subject to the absence of further negative supply disruption. We project oil and gas prices to decline in 2023-2024 compared to the historical standard to more than USD65 per barrel for crude oil and USD2.5 per million British thermal units (MMBtu) for gas. The OPEC+

group intention to maintain high oil prices by cutting oil production in 2023 amidst increasing oil demand confirming our view that the fuel commodity prices will remain high. Therefore, we view the cost of inputs is likely to remain high during our forecast period.

Pressures on profitability

We understand that the industry's profitability is highly volatile in nature, depending on the global demand and supply dynamics. We view the domestic petrochemical manufacturers continue to manage pressures on petrochemical products' price and spreads in the next 18 months. The selling price may have limited room for adjustment in the period of strong inflation, when consumers tend to be more cautious in their spending. The excess supply of petrochemical products in the global market may also constrain selling price movement. As the higher cost of inputs cannot be fully and instantaneously passed on to the petrochemical product price, the spread may depress and deteriorate the profitability, in our view.

High barrier to entry with intense competition

PEFINDO views that the entry barrier for the industry is categorized as high due mainly to the sizable capital requirement for investment and high economic of scale requirement to achieve efficient production. A strategic location close to the market with sufficient supporting facilities, including jetties, power utilities, water treatment, as well as other infrastructures, constitutes the key success factors in the industry, enabling a player to exploit economies of scale to operate efficiently. The ability to create vertical operation integration is essential to create better cost position, by investing in upstream-midstream-downstream production facilities and securing raw materials.

We consider the competition between players is intense, not only from domestic but also from overseas players. Local supply is mostly in the form of olefins, while some products are dependent on imports. More downstream products with higher value-added goods will strengthen the relationship with users and reduce the competition level. The major players in Indonesia are PT Chandra Asri Petrochemical Tbk (TPIA, $_{id}$AA-/Stable), Pertamina group including PT Polytama Propindo (PLTM, $_{id}$A-/Stable), Asahi Glass Corporation (AGC) group, and Lotte Chemical Titan (LCT). TPIA dominates the domestic market of olefins, polyethylene, and polypropylene at 50%, 40%, and 31% market shares, respectively[2].

We observe that local producers are more intense in expanding their production capacities as the market is attractive and net importer country for most petrochemical products. TPIA and LCT are penetrating to build their new naphtha cracker and expand their production capacity of their propylene and ethylene plants, while Pertamina group is in construction to add production capacity of their olefins and polypropylene plants. We expect that the additional capacity from two new naphtha cracker facilities by TPIA and LCT may substitute the imported products in the long term. As those substantial investments are mostly funded by debt, we identify the projects are exposed to risks such as projects delays, cost overruns, and rising financial leverage, which adversely affect the ability to service the financial obligations.

References:
[1]Ministry of Environment and Forestry of Republic Indonesia, "National Plastic Waste Reduction Strategic Actions for Indonesia, 2020"
[2]PT Chandra Asri Petrochemical Tbk, "Public Expose 2023, March 31, 2023"
[3]Central Bureau of Statistics, 2023

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