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Corporate Update - TPIA

Risk Analysis of Global Conflict on the Operations of PT Chandra Asri Pacific Tbk (TPIA)

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PT Chandra Asri Pacific Tbk (TPIA) has declared force majeure on its contracts due to feedstock supply disruptions triggered by the Middle East conflict and rising security risks around the Strait of Hormuz, a critical maritime chokepoint that carries approximately **20% of global oil trade and a significant portion of global petrochemical feedstock shipments.**

In industry practice, a force majeure declaration is typically invoked when a company faces **extraordinary external circumstances that physically prevent it from fulfilling contractual obligations,** such as logistical disruptions, embargoes, or war. Under this status, the company may **delay or reduce product deliveries without incurring contractual penalties** until supply chain conditions normalize.

However, if the conflict persists, the implications may extend beyond logistical constraints. Prolonged disruption could materially impact feedstock prices, plant utilization rates, and the overall profitability of the global petrochemical industry.

Source: Arab News — "Why the world can't afford a blockade in the Strait of Hormuz", 21 June 2025.

Source: Dok. Chandra Asri

Key Petrochemical Feedstocks and Potential Supply Disruptions

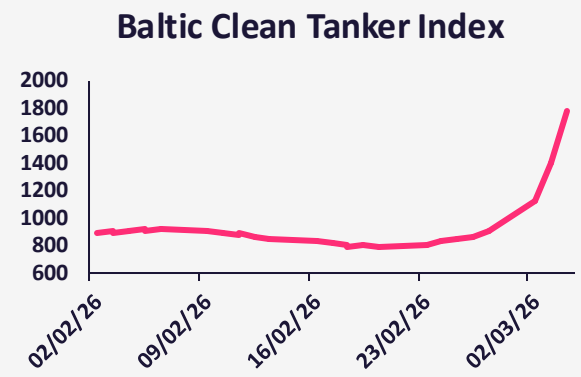
As the largest olefin and polyolefin producer in Indonesia, PT Chandra Asri Pacific Tbk **relies heavily on oil- and gas-based feedstocks** processed through its **steam cracker facilities.** Naphtha is the primary feedstock for steam crackers, used to produce ethylene, propylene, and downstream derivatives such as polyethylene and polypropylene. A significant portion of Asia's naphtha supply originates from **Middle Eastern refineries,** particularly in Saudi Arabia, United Arab Emirates, Kuwait, and Qatar.

If the conflict were to disrupt tanker routes through the Strait of Hormuz.

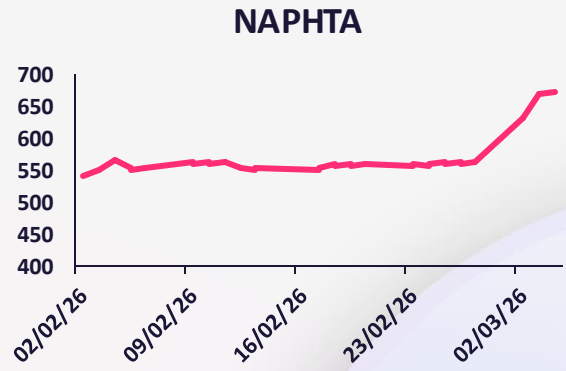
- **Naphtha shipments** could potentially experience delays due to logistical constraints along one of the world's most critical energy transit routes.
- At the same time, **freight costs** could rise significantly as shipping companies factor in higher insurance premiums, security risks, and longer routing alternatives.
- As a result, **spot naphtha** prices would likely move in line with crude oil price movements. In previous geopolitical conflicts, the spread between naphtha and crude oil widened sharply, which directly increased the **cost of goods sold (COGS) for petrochemical producers** as feedstock expenses rose more quickly than product prices.

For LPG and ethane, some Asian crackers have the capability to utilize these fuels as alternative feedstocks in place of naphtha. However, a substantial portion of the global LPG supply also originates from the Middle East. Consequently, any logistical disruptions occurring in the region could similarly constrain supply availability and tighten the market. This situation could place additional upward pressure on feedstock prices, limiting the effectiveness of feedstock switching as a cost mitigation strategy.

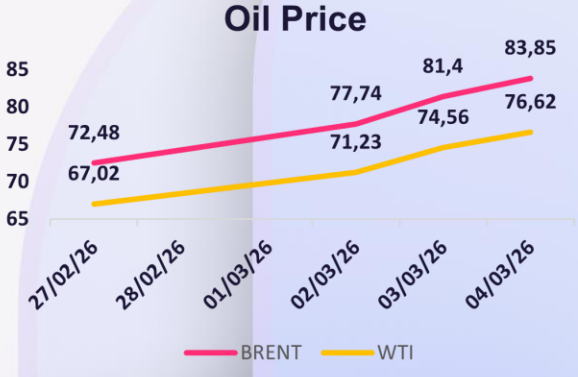
More broadly, **petrochemical feedstock prices are closely linked to global crude oil benchmarks** because many derivatives are ultimately produced from oil-based inputs. As of now, global oil prices have already reacted to the heightened geopolitical tensions. Brent crude oil increased by approximately 13% to around USD 81.83 per barrel following the US–Iran conflict, while WTI rose by roughly 11% to approximately USD 74.86 per barrel. **The rise in oil prices would directly translate into higher naphtha and LPG prices**, both of which represent key input costs for the petrochemical industry and therefore have a direct impact on production economics.



Source: Bloomberg



Source: Bloomberg



Source: Bloomberg

Direct Impact on TPIA's Operations

If the geopolitical conflict persists for several weeks or even months, the impact on companies such as PT Chandra Asri Pacific Tbk could emerge through several operational and financial channels. Beyond the immediate supply chain disruptions, prolonged instability in global energy markets may affect the company's production planning, contractual commitments, and overall profitability. In general, the risks can be grouped into three primary areas: plant utilization, contractual adjustments, and margin pressure.

Plant Utilization Risk
Delays or disruptions in feedstock supply could force the company to adjust its production operations. In such situations, the company may need to:

- reduce steam cracker utilization rates.
- postpone the production of certain resin or polymer products.
- conduct partial or temporary shutdowns of specific facilities.

Plant utilization is a particularly critical factor in the petrochemical industry because the sector is highly capital intensive and relies heavily on economies of scale. Facilities such as steam crackers require substantial fixed investments and are designed to operate at high utilization levels in order to achieve optimal cost efficiency. As a result, any significant decline in utilization rates could increase the unit cost of production and place considerable pressure on operating margins.

Contract Delays or Renegotiations
Within petrochemical supply contracts, the declaration of force majeure generally allows companies to temporarily suspend or adjust certain contractual obligations when extraordinary external conditions occur. Under such circumstances, companies may be able to:

- delay product deliveries to customers.
- reduce the volume of contracted shipments.
- renegotiate pricing terms or delivery schedules.

However, disruptions at the upstream petrochemical level may also affect downstream industries that rely on polymer materials, including plastics, packaging, consumer goods, and automotive manufacturing. As a result, supply constraints can create ripple effects across the broader manufacturing value chain. When feedstock prices rise sharply, petrochemical producers may attempt to pass through higher costs by increasing polymer prices, although the effectiveness of this strategy depends on market demand and producers' pricing power.

Petrochemical Margins
are highly dependent on the spread between polymer prices and feedstock prices. During periods of conflict, feedstock costs tend to adjust more quickly compared to polymer prices, while polymer prices usually increase at a slower pace. As a result, this imbalance between rising input costs and slower product price adjustments tends to place downward pressure on industry margins in the short term.

Additional Risk: Surge in Global Energy Prices

The conflict in the Middle East also increases the risk of a surge in global energy prices. A sharp increase in oil prices affects not only petrochemical feedstock but also **global energy and transportation costs.** In addition, Indonesia itself has relatively limited fuel reserves of around **20 days,** meaning that a prolonged conflict could force the country to purchase oil at higher prices if global supply is disrupted. This situation indicates that a global energy shock could have **broader macroeconomic implications by increasing domestic industrial production costs,** including those in the petrochemical sector.

Source: Kompas.com — "Bahlil says Indonesia's national fuel (BBM) reserves are still sufficient for 20 days", 2 March 2026

Source: Worldatlas

Are There Alternative Feedstock Options?

In industry practice, there are several theoretical mitigation strategies that petrochemical producers can adopt. Companies such as PT Chandra Asri Pacific Tbk may attempt to reduce supply risks through feedstock diversification, supply region diversification, or inventory buffering.

Feedstock diversification, some steam crackers have the technical capability to switch from naphtha to alternative feedstocks such as LPG or condensate. However, this flexibility is often limited due to factors such as plant configuration, differences in product yield, and the availability of alternative feedstock supply.

Supply region diversification, Companies may also attempt to source naphtha from alternative refining hubs such as South Korea, Japan, India, or refineries across Southeast Asia. Nevertheless, global naphtha prices generally move in line with crude oil prices. As a result, such substitution strategies may help **reduce logistical risks but are less effective in mitigating price volatility.**

Inventory Buffer, Petrochemical producers typically maintain feedstock inventories that can support operations for several weeks. If the conflict-related disruption is short-lived (around one to two weeks), plant operations may continue normally. However, if the disruption persists for a longer period, inventories could be depleted, forcing companies to adjust production levels accordingly.

Impact if the War Becomes Prolonged

If the US–Iran conflict develops into a structural disruption in the Strait of Hormuz for several months, the regional petrochemical industry could face several significant impacts. **Naphtha prices** may surge in line with crude oil movements, while **tanker freight** costs could rise sharply due to heightened shipping risks and insurance premiums. At the same time, **Asian petrochemical margins** may come under pressure as feedstock costs increase faster than product prices, potentially leading to declining cracker utilization rates as producers adjust operating levels to protect profitability. These dynamics could also push **global polymer prices** higher as supply tightens. Under such conditions, companies with **integrated feedstock supply or long-term procurement** contracts generally tend to be more resilient compared to those that rely heavily on the spot market.

Implications to TPIA Earnings & Margin Scenario

Baseline Financial Snapshot (9M25)
- Total revenue of approximately USD 7.2 billion.
- Net profit of approximately USD 1.3 billion.
- Gross margin of around 29%.
- Cash & cash equivalents of about USD 2.56 billion.
- Debt-to-equity ratio of around 1.2x.

The profitability of TPIA business largely depends on the **olefin spread**, which is the difference between polymer or ethylene prices and feedstock prices such as naphtha or LPG. In steam cracker operations, feedstock typically accounts for around 60–70% of total production costs, meaning changes in crude oil prices can directly affect operating margins.

Transmission Mechanism: Brent → Naphtha → Petrochemical Margin

- Naphtha prices generally move about 80–90% in line with Brent crude.
- Feedstock costs usually adjust faster than polymer selling prices.
- During the early phase of an energy shock, petrochemical spreads tend to narrow due to delayed product price pass-through.

Scenario Analysis

Scenario A — Brent at USD 90/bbl (≈ +20% from the USD 75 baseline)

Key implications:
- Feedstock costs increase by approximately 15–18%.
- Polymer prices typically rise more slowly, around 8–10%.

Potential impact on TPIA:
- Petrochemical spreads may narrow by around 5–10%.
- Gross margin could decline from about 28% to roughly 23–25%.

Earnings implication:
A margin decline of around 3–5 percentage points could put pressure on operating profit if production volumes remain stable.

Scenario B — Brent at USD 110/bbl (≈ +45% from baseline)
This represents a stress scenario for the petrochemical industry.

Implications for TPIA:
- Petrochemical spreads may narrow by about 10–15%.
- Plant utilization may be reduced to preserve margins.
- Gross margin could decline to approximately 18–22%.

Under this scenario, petrochemical EBITDA could potentially fall by **around 40–60% compared to normal conditions** if polymer demand does not strengthen.

Potential impact:
- Feedstock costs could surge by approximately 35–40%.
- Polymer prices typically rise only around 20–25%.

Operational Cushion

Several factors may help mitigate the impact:

- Business diversification following the integration of assets from Aster Chemicals & Energy
- Strong liquidity buffer with around USD 2.56 billion in cash
- Relatively stable domestic plastic demand in Indonesia

However, the price pass-through mechanism usually involves a **time lag of around one to two quarters**, meaning margins could still face short-term pressure before product prices adjust.

Investor Takeaway

The force majeure declaration by Chandra Asri highlights the petrochemical industry's **high sensitivity to disruptions in global energy logistics,** particularly around the Strait of Hormuz, a critical route for oil and petrochemical feedstock trade. In the short term, **geopolitical-driven oil price spikes tend to pressure petrochemical margins,** as feedstock costs usually rise faster than product prices.

For TPIA, investors should monitor not only Brent crude prices but also the **olefin spread (ethylene vs. naphtha)** and **steam cracker utilization rates,** which are key indicators of petrochemical profitability. If Brent rises into the USD 90–110 range while polymer demand remains resilient, the impact should remain manageable. However, if higher energy costs coincide with weakening global demand, petrochemical margins could remain under pressure for several quarters due to **rising naphtha prices, potential feedstock supply disruptions, and lower plant utilization.**

Footnote:

Scenario Analysis This analysis utilizes the standard petrochemical industry framework commonly used in equity research, specifically the relationship between **oil price → naphtha feedstock → ethylene spread → petrochemical margin**. In naphtha-based steam crackers, feedstock typically accounts for approximately 60–70% of total production costs. Consequently, rising oil prices tend to squeeze petrochemical margins in the short term before polymer prices can adjust.

This analytical framework is supported by various industry studies from the IEA, S&P Global Commodity Insights, as well as petrochemical margin analyses from Nexant and RBN Energy. The following references serve as the foundation for the assumptions used in this scenario analysis:

1. https://iea.blob.core.windows.net/assets/bee4ef3a-8876-4566-98cf-7a130c013805/The_Future_of_Petrochemicals.pdf
2. https://www.spglobal.com/energy/en/news-research/latest-news/chemicals/020624-asian-ethylene-naphtha-spread-reaches-9-month-high-on-improving-naphtha-supply
3. https://www.spglobal.com/energy/en/news-research/latest-news/chemicals/121624-commodites-2025-capacity-shifts-soft-downstream-demand-to-shape-ethylene-market-in-h1
4. https://www.spglobal.com/energy/en/news-research/latest-news/refined-products/122225-commodities-2026-asian-naphtha-faces-challenges-amid-petrochemical-restructuring-russian-supply-uncertainty
5. https://www.nexanteca.com/blog/petrochemicals-and-polymers-quarter-three-performance-q3-2025
6. https://rbnenergy.com/daily-posts/blog/poor-performance-petrochemical-industry-affecting-earnings

These sources are used as references to understand:

- The cost structure of the petrochemical industry.
- The relationship between oil prices and naphtha feedstock.
- Ethylene spread dynamics as an indicator of petrochemical margins.
- Global petrochemical industry margin cycles.
- As a note, various industry studies indicate that feedstock typically accounts for about 60–70% of the total production costs for naphtha-based steam crackers.

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