S&P Global
Energy

APIC 2026: Emerging stronger

Chemicals pivot from market shocks to strategic resilience

S&P Global Energy special report examines Japan's shift to high-value chemicals, Middle East conflict's impact on Asian petrochemicals and strategies to build resilience and thrive amid disruption.

26 May 2026

Credits

Contributors:
Charlene Goh, Fumiko Dobashi, Heng Hou Cheong, Mainak Moitra, Sophia Yao, Stuti Chawla, Su Yeen Cheong, Sunaina Kura, Thiam Hock Tan, Zachary Ooi, Zhi Yi Tan, Zi Nin Tan

Editors:
Ankit Ajmera, Rizwan Choudhury, Ribhu Ranjan, Sivassanggari Tamil selvam

Design: Energy Content Design

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Asian cracker margins hit by oversupply

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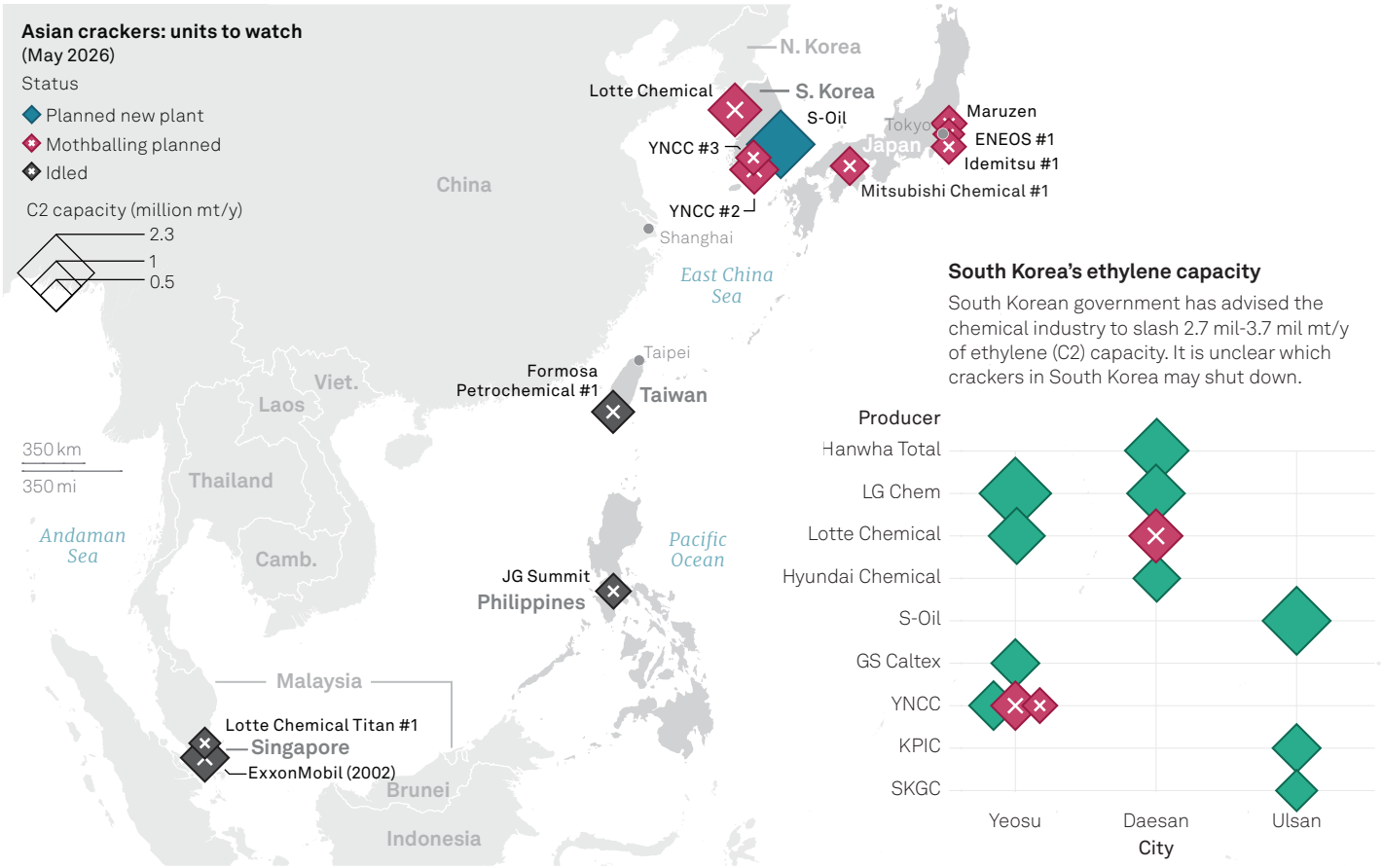
Asia's naphtha-fed steam cracker rationalization is expected to persist into 2027, with most shutdowns planned from late 2026 onward. Japan leads the region, with over 25% of ethylene capacity set for removal through three units by 2028 and one by 2030. South Korea targets a 20%-28% reduction, driven by margin pressure and feedstock realignment.

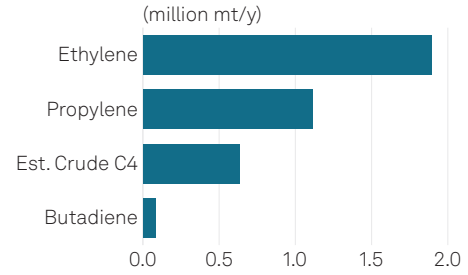
Asset rationalization for Asia ethylene



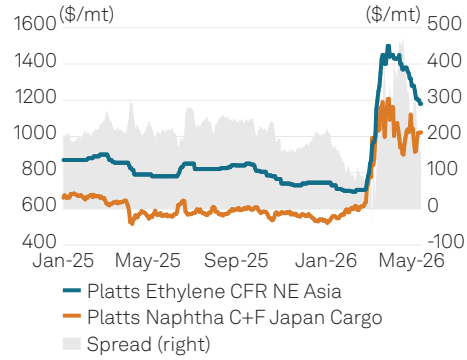
South Korea's ethylene capacity

South Korean government has advised the chemical industry to slash 2.7 mil-3.7 mil mt/y of ethylene (C2) capacity. It is unclear which crackers in South Korea may shut down.

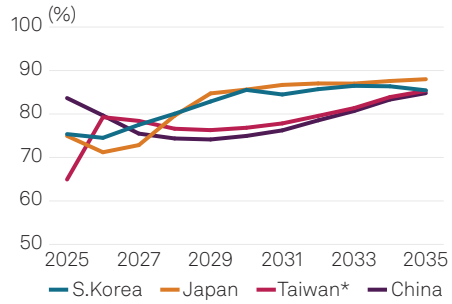
Japan's major capacity cuts by 2031



Ethylene-naphtha spread passes $400/mt



Asia ethylene operation rate (forecast)



*Idled capacity of 1.03 million mt/y is not reflected

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Source: S&P Global Energy, company and government statements, market sources

Japan leads Asia in specialty chemicals growth

Japan's petrochemical industry is undergoing a strategic transformation due to overcapacity across Asia and, more recently, disruptions in feedstock naphtha supply resulting from the conflict in the Middle East, both of which have affected production.

Once the front-runner in large-scale commodity chemicals, Japanese producers have experienced weaker margins and have undertaken cracker rationalizations in response to intensified price competition and significant capacity expansions in Asia.

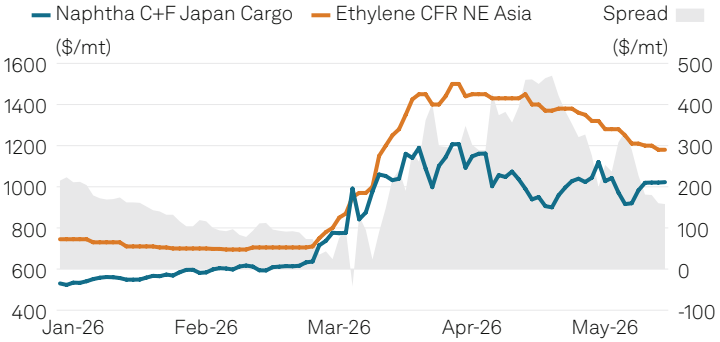
As the country's petrochemical industry seeks opportunities in the high-value specialty chemicals sector, Japan is expected to reduce polyolefin and aromatic exports due to domestic rationalization, while continuing to focus on the development and expansion of its sustainable and specialty chemicals segments.

Rationalization and restructuring

Japan's naphtha-fed steam crackers have been operating below full capacity since 2022 due to negative margins, with yields falling to a record low of 68.6% in March, from 75.7% in February and 75.1% a year earlier, according to the latest data from the Japan Petrochemical Industry Association.

With profit margins receding, several cracker rationalizations are underway, with Japan expected to reduce ethylene capacity by nearly 2 million metric tons/year and propylene capacity by 1.2 million mt/y by 2031.

Platts NE Asia ethylene-naphtha spread below breakeven

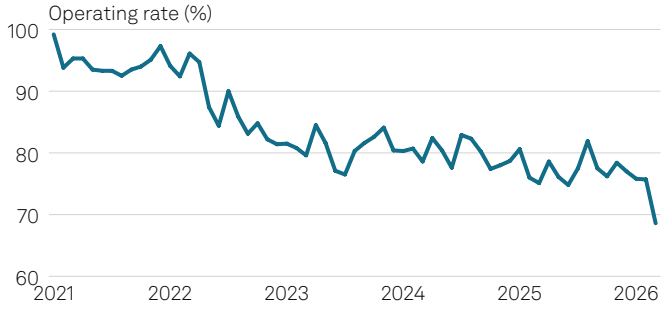


Source: S&P Global Energy

"Our projections indicate a decline in benzene extraction from naphtha-fed ethylene crackers in Eastern Asia (excluding China), driven by slim production margins and industry rationalization," said Eshwar Yennigalla, senior principal analyst for aromatics at S&P Global Energy CERA.

"After reaching a peak of 4.2 million mt in 2021, we anticipate a reduction of about 1 million mt by 2030 as rationalization efforts continue across the olefins sector," Yennigalla said.

Japan's steam cracker operationing rates hit record low



Source: Japan Petrochemical Industry Association

Japan cracker rationalizations

Owner(s)	Action	Location	Capacity before ('000 mt/y)	Capacity after ('000 mt/y)	Timeline (fiscal year)
ENEOS	Closure	Kawasaki	448	—	Apr-27 to Mar-28
Maruzen Petrochemical	Closure	Chiba (East Japan)	525	—	Apr-26 to Mar-27
Idemitsu Kosan & Mitsui Chemicals	Merger	Chiba (East Japan)	920	550	Jul-27
Mitsubishi Chemical, Asahi Kasei & Mitsui Chemicals	Merger	Osaka (consolidated from Mizushima)	951	455	Apr-30 to Mar-31

Source: Company statements

Aromatics demand slowing

Japan has historically been a major supplier of aromatics in Northeast Asia, exporting benzene, paraxylene and other products to China, the region's key demand hub. However, its role as a leading producer is gradually diminishing due to declining cost competitiveness and rapid capacity expansions in China.

Data from S&P Global Energy show that Japan's benzene exports totaled 663,364 mt in 2025, representing a decline of more than 25% from 2016, when outflows amounted to 888,055 mt.

Notably, China -- the world's largest demand center for aromatics -- has made significant investments in crude oil-to-chemicals

projects over the years to boost self-sufficiency. This move has heightened price competition and decreased import demand for Japanese aromatics.

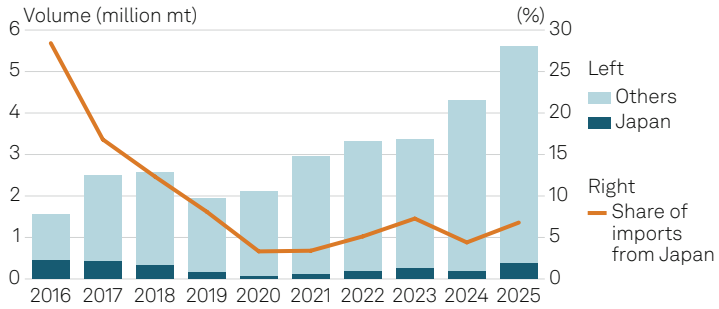
China's increasing self-sufficiency and declining reliance on imports are not only impacting the aromatics market but also posing considerable risks to Japanese producers of downstream derivatives.

With domestic demand in Japan slowing and profitability pressures mounting, the industry has been compelled to close uncompetitive units, thereby reshaping the regional landscape.

Adding to these challenges, the Middle East conflict has further disrupted Japan's aromatics production, given the country's heavy reliance on Middle Eastern feedstock. Naphtha supply disruptions have constrained operating rates since the onset of the conflict, prompting suppliers to adjust delivery schedules or declare force majeure.

"Japan's import reliance on Middle Eastern crude and naphtha supplies is very high ... the main priority is still to get as much feedstock as possible, while maintaining low run rates for now," a trader based in Southeast Asia said.

Japan's share of benzene exports to China tumbles



Source: S&P Global Energy

Olefins and polymer dynamics

In the polyolefins sector, ongoing rationalization, combined with rapid capacity expansions in China, is expected to drive increased imports into Japan.

"For commodity polyethylene and polypropylene grades, we will see Japan importing more as there are no global supply issues," said Feng Shaohua, director for Asia polymers news and research management at CERA.

Japan became a net high-density polyethylene importer after 2021. According to S&P Global Energy data, HDPE imports increased to 204,897 mt in 2025, from 176,226 mt in 2021, while HDPE exports over the same period fell to 154,489 mt from 191,287 mt.

600,000 mt

approximate ethylene trade surplus maintained by Japan in 2025

Japan remained a net exporter of ethylene and propylene in 2025 despite declining cracker rates. The trade surplus for ethylene was nearly 600,000 mt during the year, while the surplus for propylene was 500,000 mt, Japan Customs data show.

Going forward, the country is expected to maintain its net export status for these two products, due to increasing rationalization and declining domestic consumption of downstream polyolefins.

Specialty chemicals strategy

Amid intense global competition, Japanese producers are increasingly shifting their focus to specialty chemicals, which offer greater resilience against price pressures stemming from economies of scale. These high-performance products have become essential for sustaining competitiveness and expanding market share.

Supported by progressive government legislation, Japan has established itself as Asia's leader in chemical recycling and plastic waste management, fueled by its advanced infrastructure and innovative, commercialized recycling technologies -- areas in which many of its Asian counterparts remain in the early stages of development.

"The polyolefins industry is interesting as, apart from competing with volume, producers can also compete with technology by differentiating their products, such as by producing specialty metallocene and polyolefin grades," Feng said, adding that Japanese producers are renowned for their technological and application expertise.

Key products include ethylene vinyl alcohol and cyclo-olefin copolymer. As of 2023, Japanese companies such as Kuraray and Mitsubishi, along with their manufacturing facilities in the US

and Western Europe, accounted for about 95% of global EVOH production capacity, according to S&P Global Energy data.

On April 21, Japan's Ministry of Economy, Trade and Industry announced plans to invest $6.28 billion in metals and plastics recycling by 2030.

The country is also actively expanding its capacity for processing mixed plastic waste. For example, chemical recycler CFP Group plans to launch a new 10 mt/d facility in Okayama in April 2027 that will produce pyrolysis oil, a feedstock for steam cracking.

Chemical Recycle Japan Co.'s 20,000 mt/y pyrolysis-based waste plastic recycling facility in Chiba is scheduled to begin commercial operations in April 2027. The company is a joint venture between Idemitsu Kosan Co. and Fukuyama-based Environment Energy Co. Idemitsu has stated that it plans to use pyrolysis oil as feedstock to produce circular chemicals using mass-balance accounting.

In the recycled polymers sector, Japan's advanced chemical recycling technology has gained international recognition and adoption. JEPLAN has established strategic partnerships in countries such as the UAE and France. In the UAE, JEPLAN's polyethylene terephthalate recycling technology, BRING, is being utilized to develop a recycled PET supply chain, with plans underway for a new recycling plant.

"With shrinking domestic consumption and an aging population, we will see Japan continue to focus on specialty chemicals and the recycled space to stay competitive," Feng said.

"The polyolefins industry is interesting as, apart from competing with volume, producers can also compete with technology by differentiating their products, such as by producing specialty metallocene and polyolefin grades."

— Feng Shaohua, director, CERA Asia polymers news and research management, S&P Global Energy

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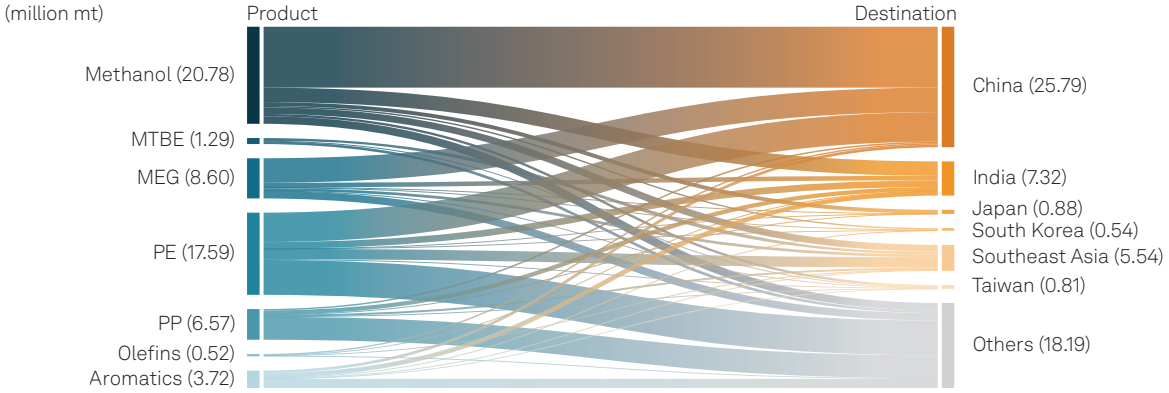
Middle East war challenges

Middle East war disrupts chemical supplies

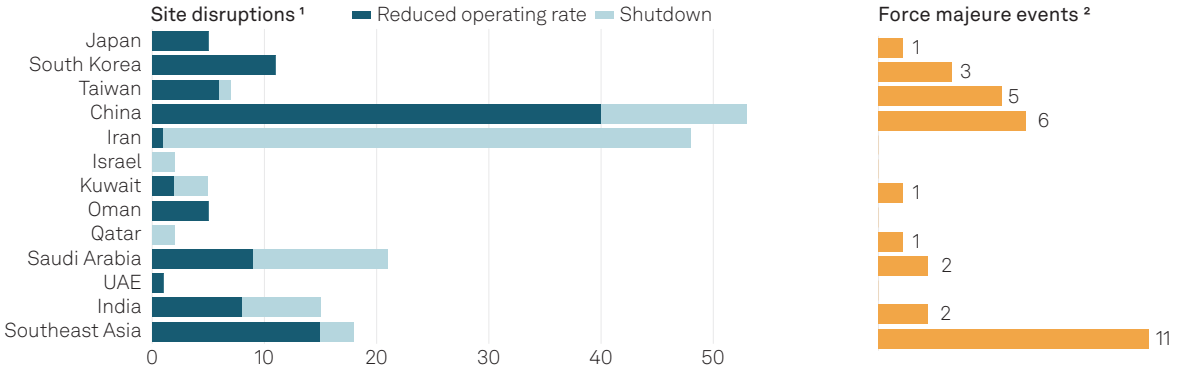
May 2026

Disruptions in the Strait of Hormuz have impacted Middle Eastern naphtha and petrochemical exports, leading to tighter supply across Asia. Producers have cut operating rates due to feedstock shortages, driving sharp price increases and sustaining high costs across the value chain.

Middle East chemical trade flows, 2025



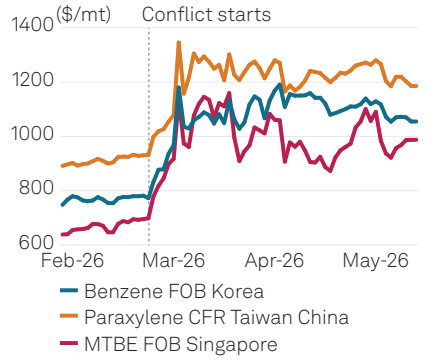
Middle East war disrupts production across Asia



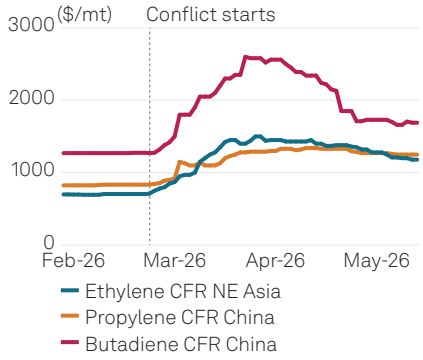
¹ Figures are estimated based on S&P Global Energy CERA's internal analysis of upstream conditions, shutdowns, trade flows, domestic demand and regional supply-demand balances and are supplemented by industry association data, Platts reports, and direct market and company checks, where available. The data reflects information up to April 28 since the start of the war.

² Force majeure data is based on reported and confirmed events by Platts, excluding subsequent clarifications. The data reflects information as of April 30.

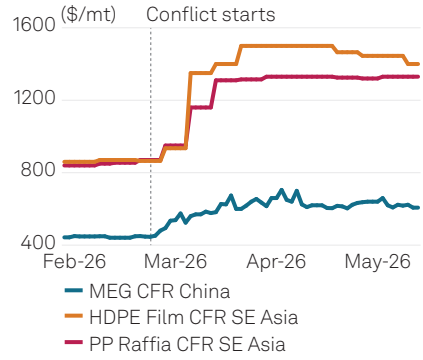
Platts aromatic and blendstock prices



Platts olefin prices



Platts polymer prices



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Source: S&P Global Energy, S&P Global Market Intelligence's Global Trade Analytics Suite, company statements and customer letters

Asia petrochemicals face Middle East war challenges

The Middle East war has turned 2026 from a projected year of petrochemical surplus into one of the industry's most severe supply crises. The geopolitical conflict has exposed critical vulnerabilities in Asia's petrochemical supply chain, triggering unprecedented feedstock disruptions, driving price volatility and prompting a fundamental reassessment of regional trade flows and feedstock strategies.

"Naphtha has moved beyond economics. Availability is now the core concern, and while Asian producers are turning to alternatives outside the Middle East Gulf, these flows cannot fully replace lost volumes."

— April Tan, associate director, Asia and Middle East petrochemical feedstock, S&P Global Energy CERA

Naphtha shock

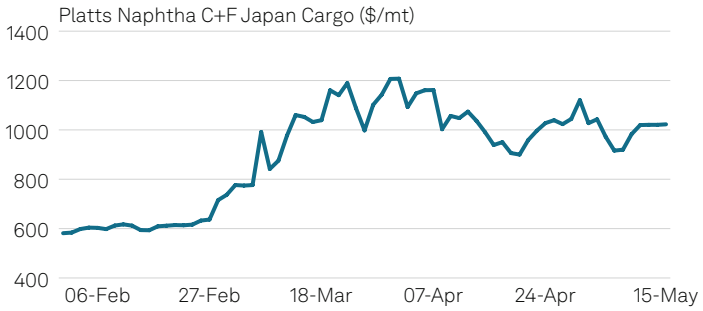
Before the conflict, the Strait of Hormuz facilitated the daily transit of nearly 1.2 million barrels of naphtha, meeting 60%-70% of Asia's import needs and accounting for 80%-90% of Middle Eastern naphtha exports, according to S&P Global Energy CERA.

Trade disruptions through the Strait of Hormuz sharply reduced these flows, creating a supply shortage and exposing Asia's heavy reliance on the Middle East.

March shipments of Middle Eastern naphtha dropped to just 692,000 metric tons -- less than one-fifth of February's exports, which totaled 4.06 million mt, according to S&P Global Commodities at Sea.

The Platts C+F Japan naphtha marker soared to a record high of $1,207.50/mt on March 31, rising 89.7% in just over a month -- the highest level recorded by Platts, part of S&P Global Energy, since 2010

Asian naphtha price hits record high on supply shortage



Source: S&P Global Energy

Faced with a supply shortfall, Asian buyers sought alternative sources in the Mediterranean, North Africa and Northwest Europe. In March, Asia's naphtha imports from these regions reached 725,300 mt, a 6% increase from February, according to CAS.

"Naphtha has moved beyond economics ... availability is now the core concern, and while Asian producers are turning to alternatives outside the Middle East Gulf, these flows cannot fully replace lost volumes," said April Tan, associate director, Asia and Middle East petrochemical feedstock at CERA.

"If the conflict drags on, today's supply constraint will evolve into demand curtailment as high costs become unsustainable for consumers," Tan said.

Feedstock shortages compelled naphtha-fed steam crackers across Asia to either reduce operating rates or declare force majeure.

Ripple effect

The naphtha shortage swiftly impacted the ethylene market, which serves as the backbone of the petrochemical and plastics industries.

Platts Asian ethylene prices more than doubled during the month, reaching $1,500/mt on March 30 CFR Southeast Asia and Northeast Asia, the highest level doubled since 2014.

Platts Asian aromatics spreads to naphtha: Historic lows in March ($/mt)

Date	Product	Price	Naphtha C+F Japan	Spread to naphtha
20-Mar-26	Benzene FOB Korea	1,049.50	2024	2031/32
31-Mar-26	Toluene FOB Korea	1,112.00	2023	2030/32
31-Mar-26	Isomer MX FOB Korea	1,135.50	2023	2030

Source: S&P Global Energy

This disruption extended downstream, impacting the production of propylene and butadiene, as well as aromatics such as benzene and toluene -- all derived from naphtha -- as well as polymers including polyethylene and polypropylene.

Widespread supply constraints across the petrochemical chain triggered sharp price increases, as suppliers struggled to secure essential feedstocks and sought to protect margins by passing on rising costs to downstream buyers.

Asian aromatics spreads to naphtha turned negative and reached record lows in March, as petrochemical demand struggled to keep pace with rapidly increasing feedstock prices amid the Middle East conflict.

Emerging opportunities

The conflict has disrupted trade flows and patterns, prompting petrochemical markets to scramble to mitigate supply shortages and sustain operations.

The global polymer sector, for example, has historically relied heavily on the Middle East, which, according to S&P Global Energy Horizons, has accounted for nearly 25% of global polyethylene and polypropylene exports.

China, in particular, relied on Saudi Arabia, the UAE, Iran and Qatar for about 43% of its total polyethylene imports in 2025, according to data from China's General Administration of Customs.

As the conflict disrupted traditional supply routes, Chinese buyers increased imports from other Asian destinations.

The country boosted its high-density polyethylene imports in March from several regions, including Taiwan (up 208% month over month), Vietnam (up 377%), Thailand (up 103%) and Japan (up 101%), General Administration of Customs data show.

The Platts HDPE Film CFR Far East Asia price hit its highest level in over seven years, reaching $1,310/mt on April 7, before declining to $1,245/mt on April 24.

China's increasing self-sufficiency and its emergence as a net polypropylene exporter have helped mitigate regional supply shortages, providing a buffer against price volatility despite ongoing feedstock challenges.

Meanwhile, trade flows in the methanol market -- a key export product from the Middle East, supported by the region's abundant natural gas resources -- have shifted significantly in recent months.

17 million mt

of methanol exported from the Middle East in 2025, with most volumes disrupted

Over 17 million mt of methanol were exported from the Middle East in 2025, with most of these volumes affected by the current war, according to CERA.

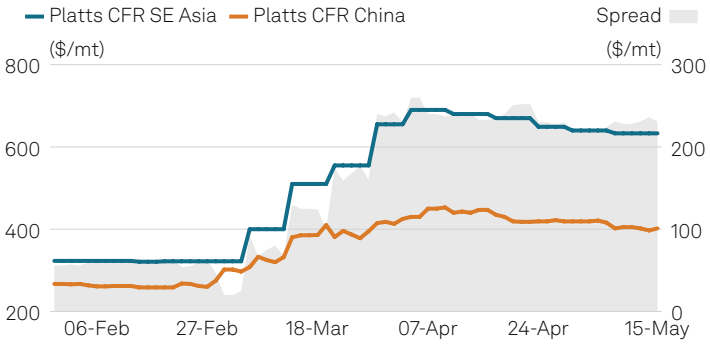
In an unusual reversal of typical trade flows, China has emerged as a methanol exporter to both Southeast Asia and Northeast Asia, prompted by supply shortages resulting from concurrent plant outages and production challenges across Southeast Asia.

In addition, Saudi Arabia and Qatar -- key methanol exporters to Asia -- have faced difficulties in moving cargoes eastward, further exacerbating supply constraints.

China exported 65,726 mt of methanol to Southeast Asia in March, over four times more than the previous month, according to the General Administration of Customs. Meanwhile, China's methanol imports dropped 51% during the same period, totaling 437,914 mt.

The Platts CFR China methanol price jumped to a 54-month high of $453/mt on April 9, while prices in Southeast Asia rose to $690/mt CFR on April 2 -- the highest level recorded by Platts since 2013.

China-SE Asia methanol spread widens on supply shortage



Source: S&P Global Energy

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Petrochemical policies

Asia adjusts petrochemical policies

40 products

had import duties reduced to zero in India to ease supply contraints

Asia's key petrochemical producing and consuming countries have implemented stabilizing measures to offset pressures from the Middle East conflict, US sanctions and tariffs, including redirecting upstream chemical and intermediate production toward essential commodities, relaxing import duties and extending financial support to the sector.

The Middle East conflict has disrupted supply chains, sharply reducing Asian imports of upstream commodities from the region, including in China, India, South Korea and Southeast Asia.

Due to maritime constraints in the Strait of Hormuz, global vessel and container availability declined as shipping traffic nearly halted, which also restricted exports of downstream value-added products from several Asian origins.

India prioritizes essential commodities

On March 9, the Indian government directed domestic oil refining companies to maximize propane and butane streams -- whether produced, recovered or fractionated -- for the production of LPG, resulting in the suspension of production for several downstream petrochemicals.

India also removed customs duties on certain petrochemical and chemical imports, effective from April 2 through June 30, reducing overall levies on 40 petrochemical imports to zero.

While the initiative provided some price relief for imports of methanol, acetic acid, purified terephthalic acid and monoethylene glycol, among others, it potentially benefited Chinese suppliers of solvents such as toluene and phenol, making China-origin material more competitive.

Market participants reported varying impacts of the duty cut across several segments. In the polyurethane chain, Middle East supply disruptions possibly overshadow support from the duty exemption, according to an Indian polymer producer, who cited its short validity period.

The Indian methanol market also experienced negligible effects, as prices had already more than doubled due to the war, according to market sources.

Certain chemicals, such as normal butyl acrylate, have gained from the removal of Bureau of Indian Standards quality controls between April 10 and July 10 -- a move that diversified supply chains by opening the market to countries previously restricted by quality-control requirements.

China's feedstock diversification

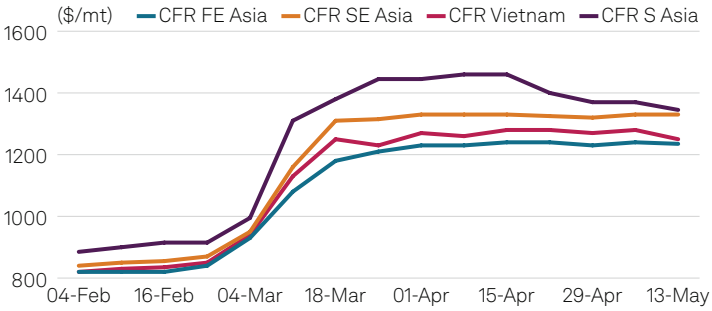
Market participants in China have reported increasing coal-to-olefins, or CTO, manufacturing to diversify their feedstock requirements.

While many countries have grappled with high polypropylene prices since the start of the Middle East war in late February, those in China remained comparatively lower.

Some Chinese CTO plants have been reported to be operating at 100% capacity, whereas propane dehydration plants and naphtha crackers were running at 60% to 70% capacity, depending on feedstock availability, according to market sources.

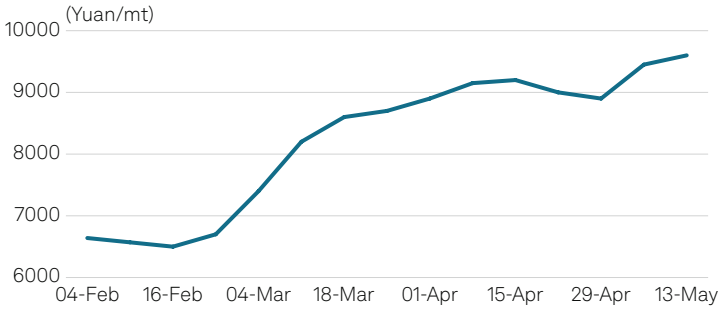
Market participants estimated that about 23% of current polypropylene capacity in China was being fulfilled by CTO production.

Platts Asia PP raffia prices rise on higher feedstock costs



Source: S&P Global Energy

Platts China PP raffia remains regionally competitive



Source: S&P Global Energy

However, market sources in India said that although polypropylene produced at CTO plants in China was offered at more competitive levels than material from C3-based plants, its inland location primarily helped alleviate Chinese domestic supply concerns rather than bridging the export gap.

"Some CTO plants [in China] are running at full capacity, and there are challenges in shipping both granules and finished products out of China. So, more material could be staying within the domestic market," an India-based producer said.

South Korea's financial support

South Korea said in April it will provide up to Won 674.4 billion ($458 million) in funding to subsidize import costs for petrochemical feedstocks and olefins, as part of supply stabilization measures to counter the impact of the Middle East war on its domestic industry.

The support program will cover 50% of the price gap between prewar levels and actual import prices for naphtha, LPG, condensate, ethylene and propylene volumes contracted between April and June, according to an April 15 announcement by the Ministry of Trade, Industry and Energy.

Earlier in April, South Korea's Financial Services Commission announced plans to increase financial support for private-sector oil refiners and petrochemical companies affected by supply chain disruptions linked to the Middle East conflict. The commission instructed state-run banks to provide additional liquidity to facilitate crude oil procurement.

While such measures offer immediate relief, market participants noted that long-term changes in trade flows resulting from the ongoing war and sanctions will be crucial for the petrochemical sector to monitor.

Global petrochemicals market coverage

Global petrochemicals market coverage

Feedstocks

- Benzene
- Butadiene
- Crude C4s
- Ethyl tert-butyl ether (ETBE)
- Ethylbenzene (EB)
- Ethylene
- Isomer-MX
- Methanol
- Methyl tert-butyl ether (MTBE)
- Orthoxylene (OX)
- Paraxylene (PX)
- Propylene
- Raffinate-1
- Solvent Naphtha
- Solvent Toluene
- Solvent Xylene
- Solvent-MX
- Toluene
- Chemical liquid freight
- Chemical gas freight

Intermediates and derivatives

- 2-Ethylhexanol (2-EH)
- 2-Ethylhexyl Acrylate (2-EHA)
- Acetic Acid
- Acetic Anhydride (AAn)
- Acetone
- Acrylonitrile (ACN)
- Adipic Acid
- Bisphenol-A (BPA)
- Butyl Acetate (BUTAC)
- Butyl Acrylate
- Caprolactam
- Carbon Black
- Caustic Soda
- Chlorine
- Cumene
- Cyclohexane
- Diisononyl Phthalate (DINP)
- Dioctyl Phthalate (DOP)
- Dioctyl Terephthalate (DOTP)
- Ethanolamines
- Ethyl Acetate (ETAC)
- Ethylene Dichloride (EDC)
- Ethylene Oxide
- Glacial Acrylic Acid (GAA)
- Glycols (MEG, DEG, TEG)
- Hexamethylenediamine (HMDA)
- Hydrochloric Acid
- Isobutanol
- Isocyanates
- Isopropyl lcohol (IPA)
- Linear Alpha Olefins (LAO)
- Methyl Ethyl Ketone (MEK)
- Methylene Diphenyl Diisocyanate (MDI)
- Methyl methacrylate (MMA)
- N-Butanol
- Phenol
- Phthalic Anhydride (PA)
- Polyols
- Propylene Glycols
- Propylene Oxide
- Purified Terephthalic Acid (PTA)
- Soda Ash
- Styrene Monomer (SM)
- Toluene Diisocyanate (TDI)
- Vinyl Acetate Monomer (VAM)
- Vinyl Chloride Monomer (VCM)
- White Spirit (D40, D60)

Polymers and end-use materials

- Acrylic Fiber
- Acrylonitrile Butadiene Styrene (ABS)
- Epoxy Resin
- Ethylene Vinyl Acetate (EVA)
- Nylons (PA6, PA66)
- Plastic Waste Bales
- Polymethyl methacrylate (PMMA)
- Polybutylene Terephthalate (PBT)
- Polycarbonate (PC)
- Polyester
- Polyethylene (PE)
- Polyethylene Terephthalate (PET)
- Polyoxymethylene (POM)
- Polypropylene (PP)
- Polystyrene (PS)
- Polyvinyl Chloride (PVC)
- Recycled-ABS
- Recycled-PE
- Recycled-PET
- Recycled-PP
- Recycled-PS
- Rubbers (SBR, PBR, Natural rubber)
- Polymers freight

Source: S&P Global Energy

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CONTACTS

Americas: +1 800 597 1344
Asia Pacific: +60 4 296 1125
Europe, Middle East, Africa: +44 (0) 203 367 0681

support.energy@spglobal.com
www.spglobal.com/energy