

China's Polyolefins Strategy: Evolving to Meet New Challenges



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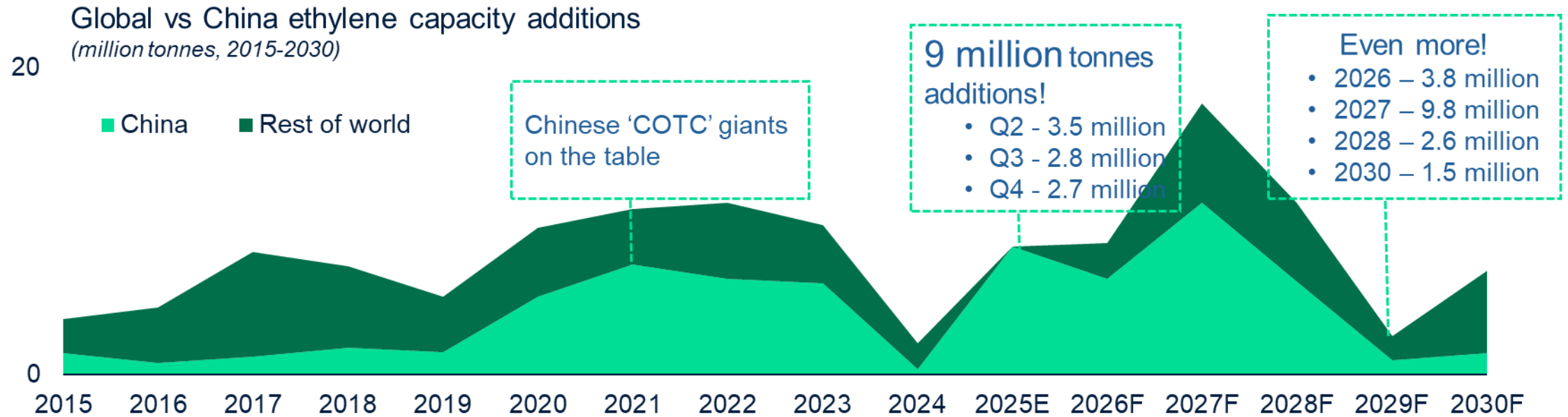
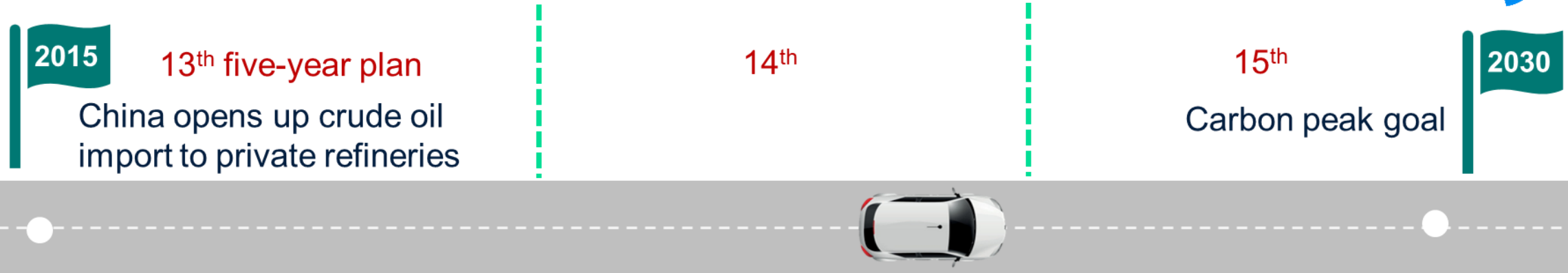
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Senior Analyst, ICIS

Agenda



- ❖ China's petrochemical industry: new expansion and strategic shifts
- ❖ Polyolefins supply and market landscape
- ❖ Key market trend: technological advancements and demand segmentation

Why does China still invest on chemicals capacity?

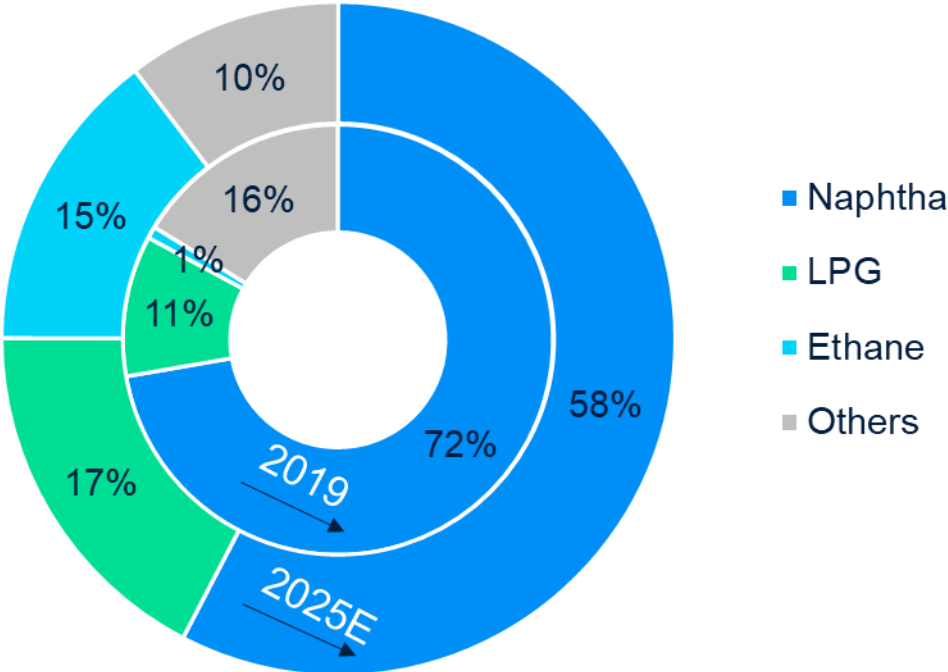


Source: ICIS Supply and Demand Database

Energy transition and profitability drives a shift to lighter feedstocks and more polyolefins output



China's ethylene feedstock trend
(2019 vs 2025)



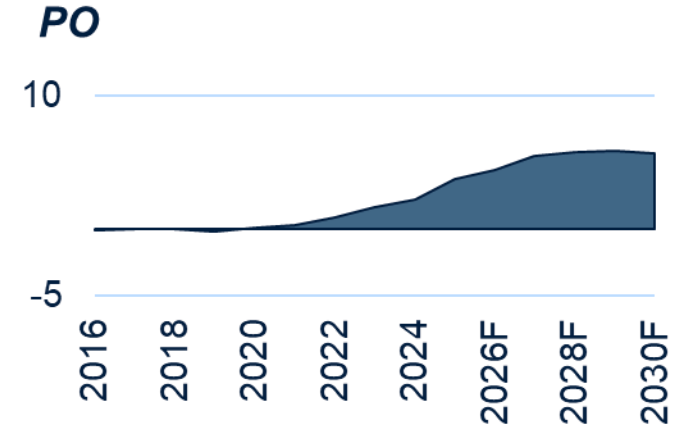
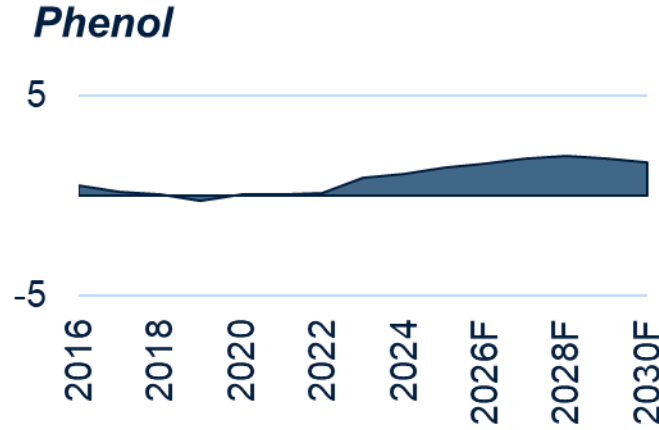
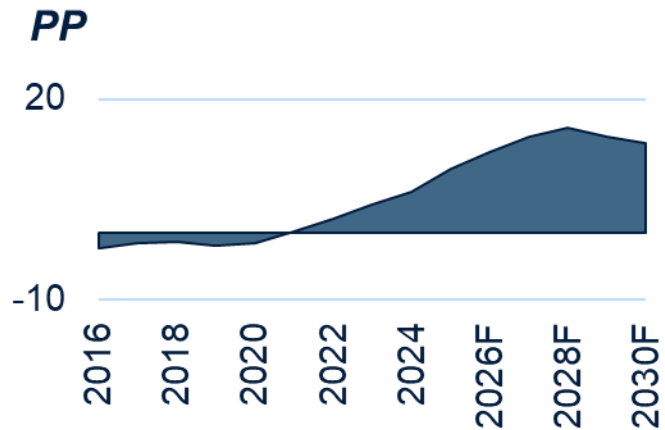
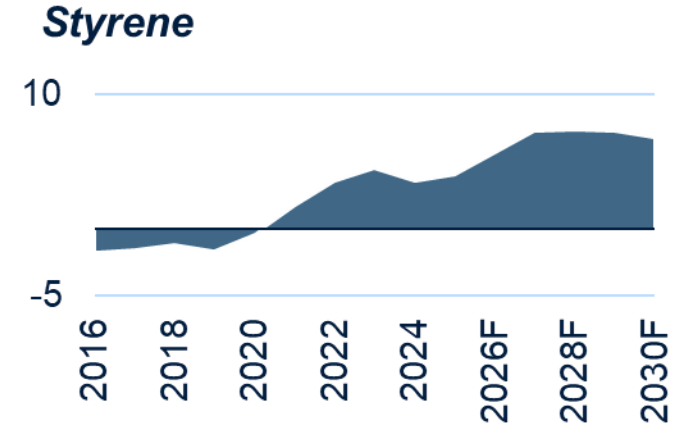
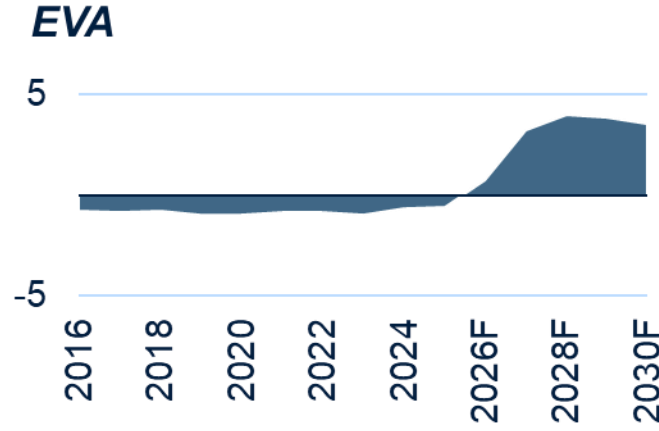
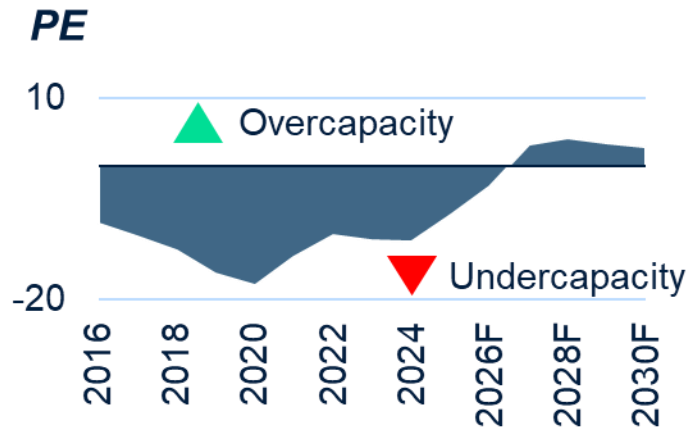
- China's energy transition involves refinery and increased chemical production capacity
- Ethane crackers' profitability garners significant interest
- Producers collaborate strategically and progress globalisation amid tariff disputes and geopolitical uncertainties

Source: ICIS Supply and Demand Database

Chemical industry struggles with overcapacity



China's supply-demand balance status by commodities
(million tonnes, 2016-2030)

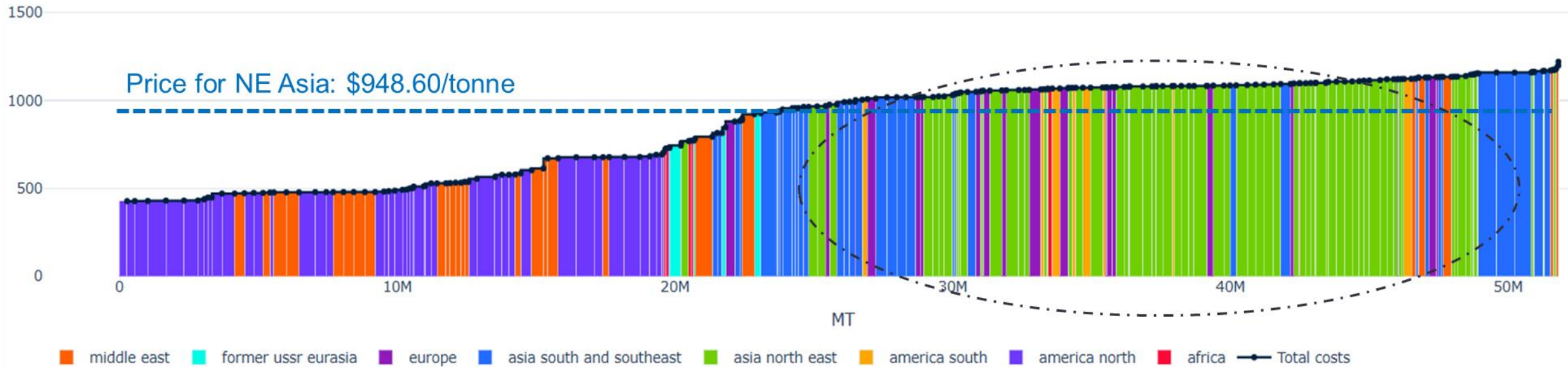


Source: ICIS Supply and Demand Database

Asia's plant disadvantages spark search for solutions



Global LLDPE cost curve
(\$/tonne, 2024)

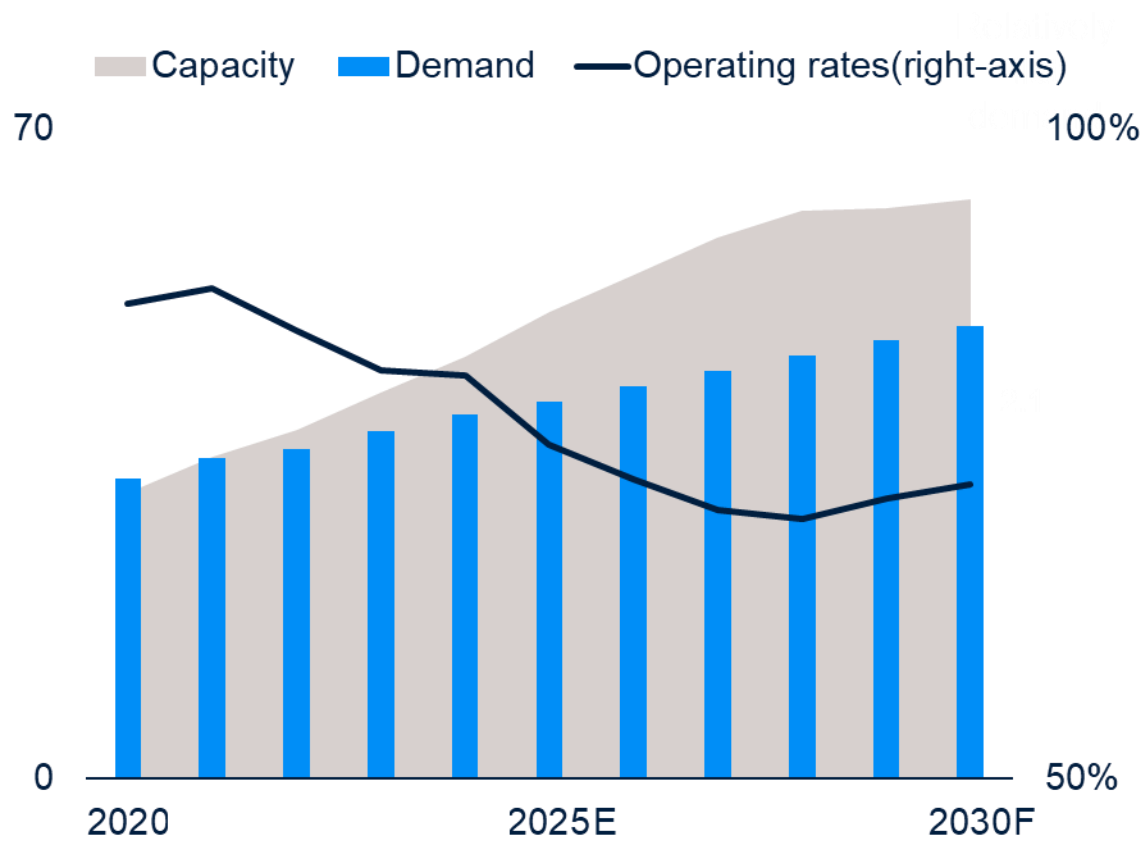


- China will replace outdated plants, advance scalable projects, and enhance supply chain efficiency while expanding

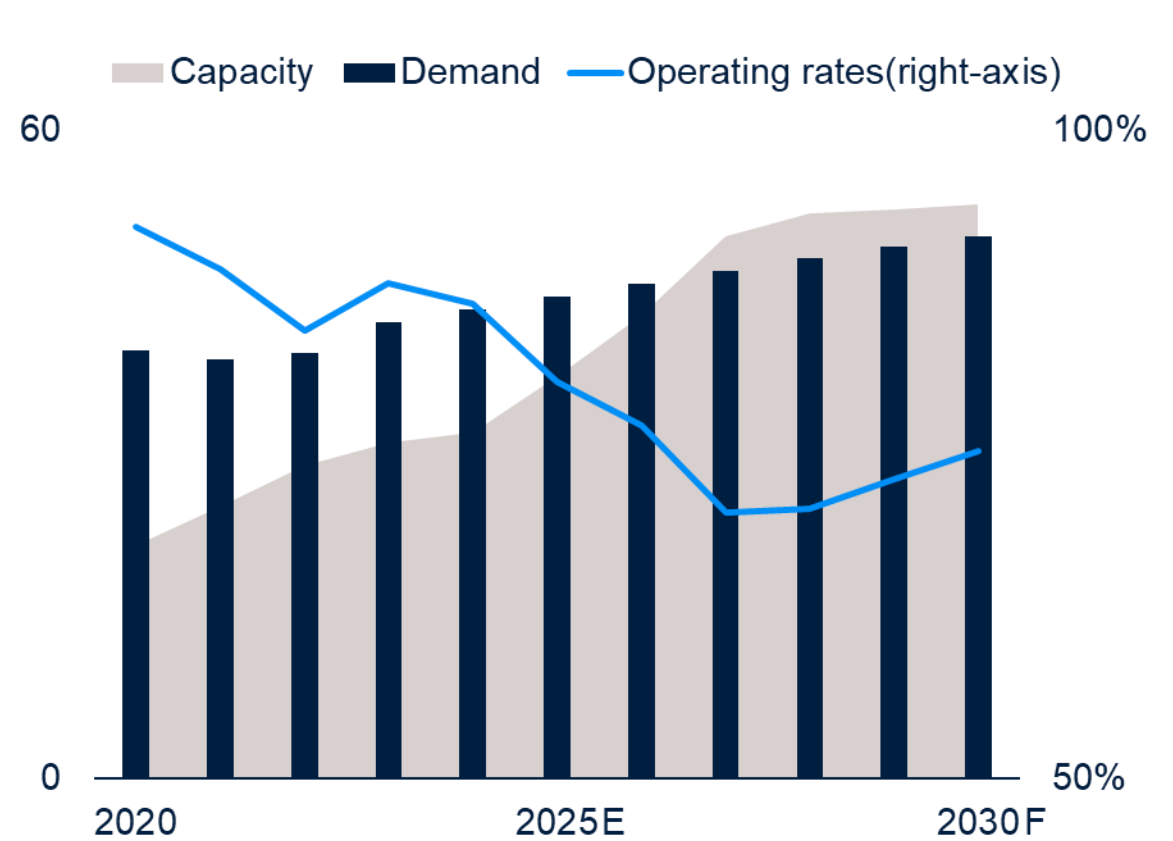
Polyolefins oversupply prompts production cutbacks



China PP balance trend
(million tonnes, 2020,2025,2030)



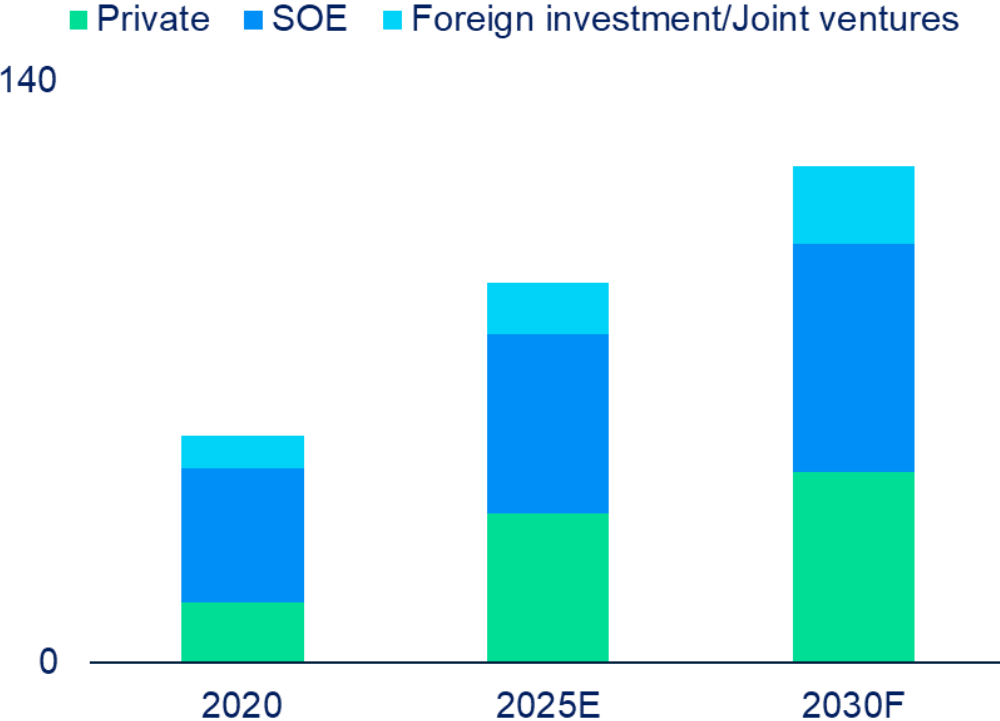
China PE balance trend
(million tonnes, 2020,2025,2030)



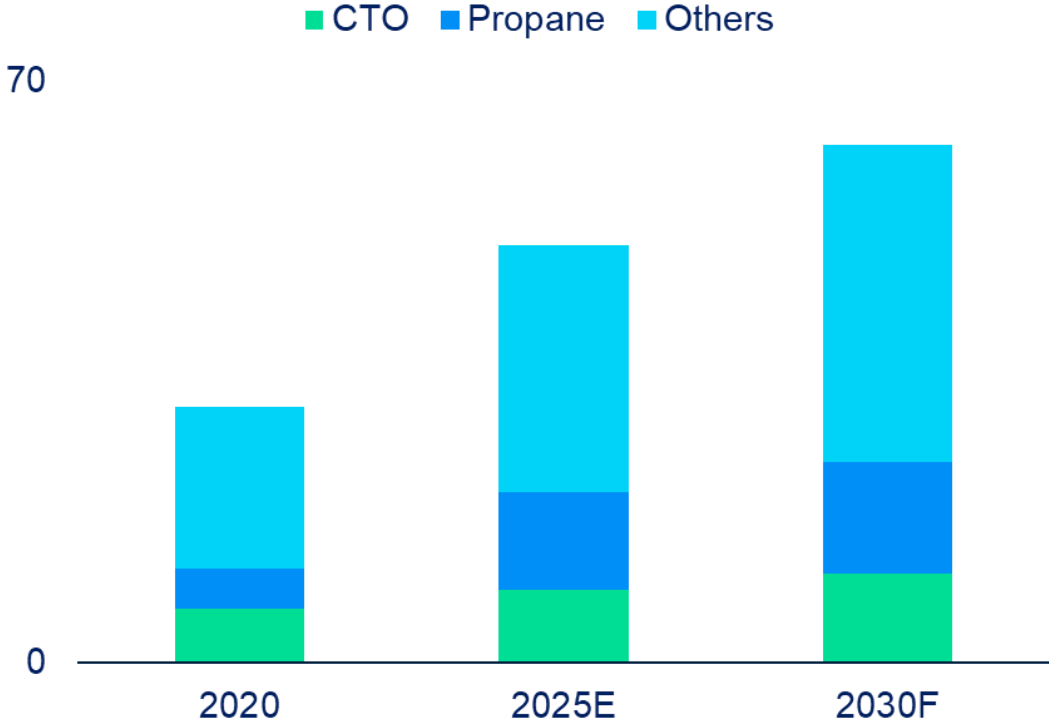
Diversified investment strategies drive hyper competition in markets



Production ownership trend
(million tonnes, 2020,2025,2030)



PP feedstock trend
(million tonnes, 2020,2025,2030)

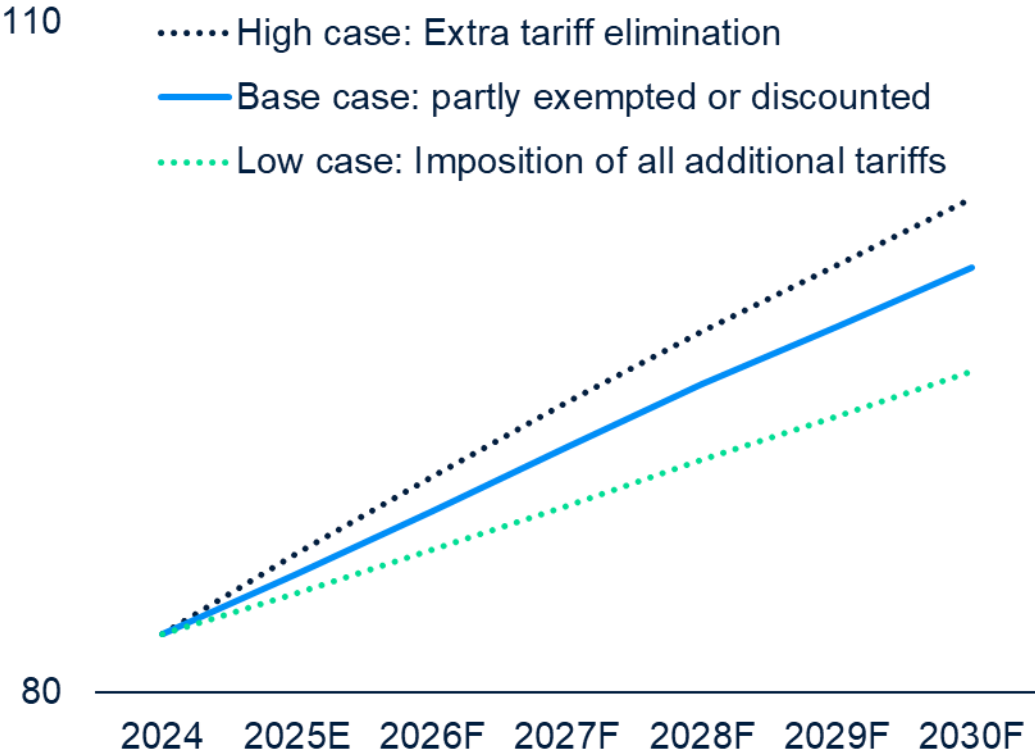


Source: ICIS Supply and Demand Database

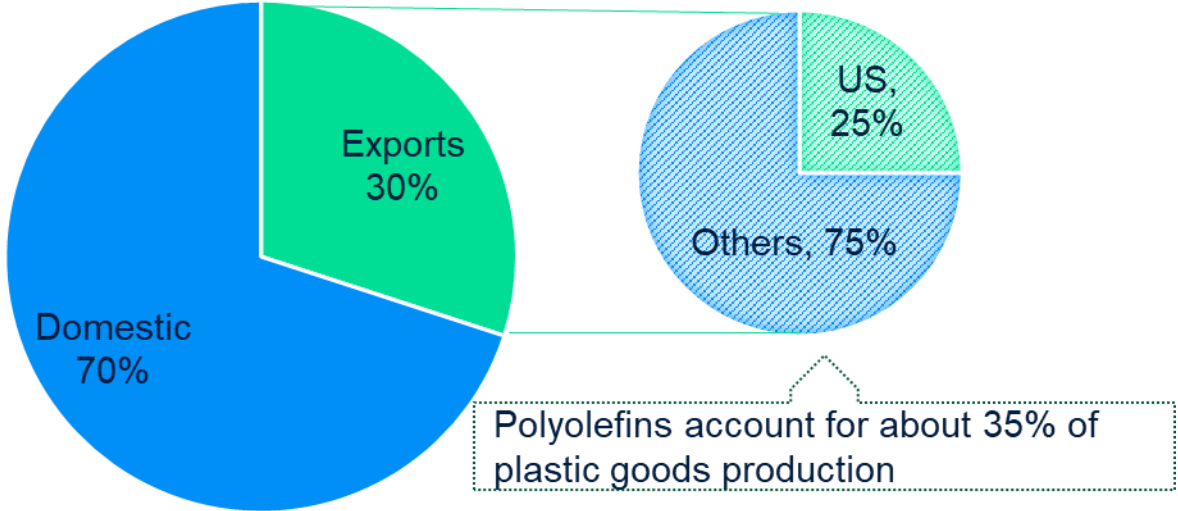
China's polyolefins demand shifts towards domestic consumption due to uncertain exports



Impact of US tariff scenarios on China's polyolefin demand trends
(million tonnes, 2024-2030)



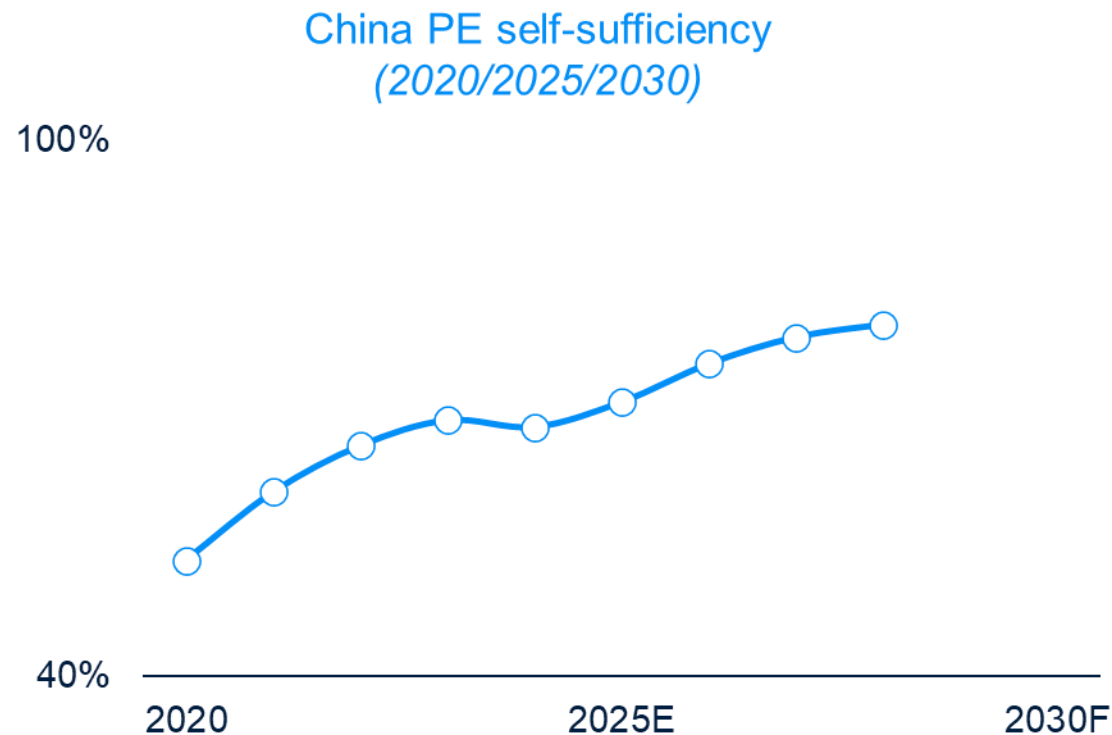
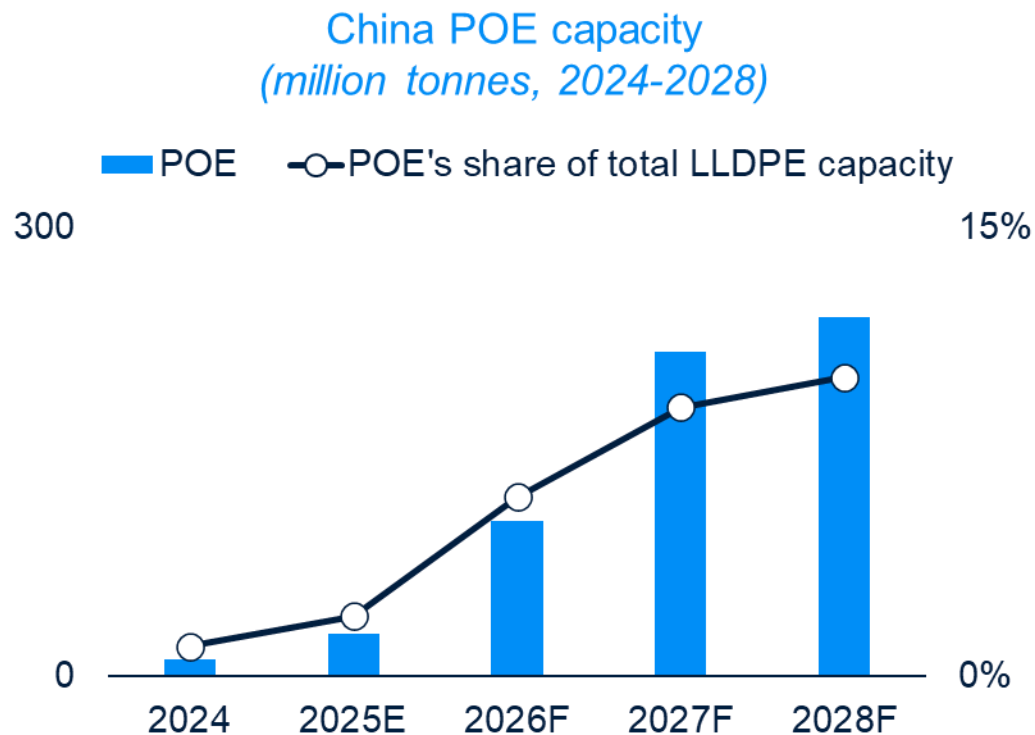
2024 Production of plastic goods in China
(million tonnes, 2024)



- Diverse consumer demand and technology innovation fuel packaging market growth
- Infrastructure construction, EVs, home appliances, and daily necessities are the key drivers for demand growth

Source: ICIS Supply and Demand Database

The increasing localization of specialty grades enhances overall PE self-sufficiency

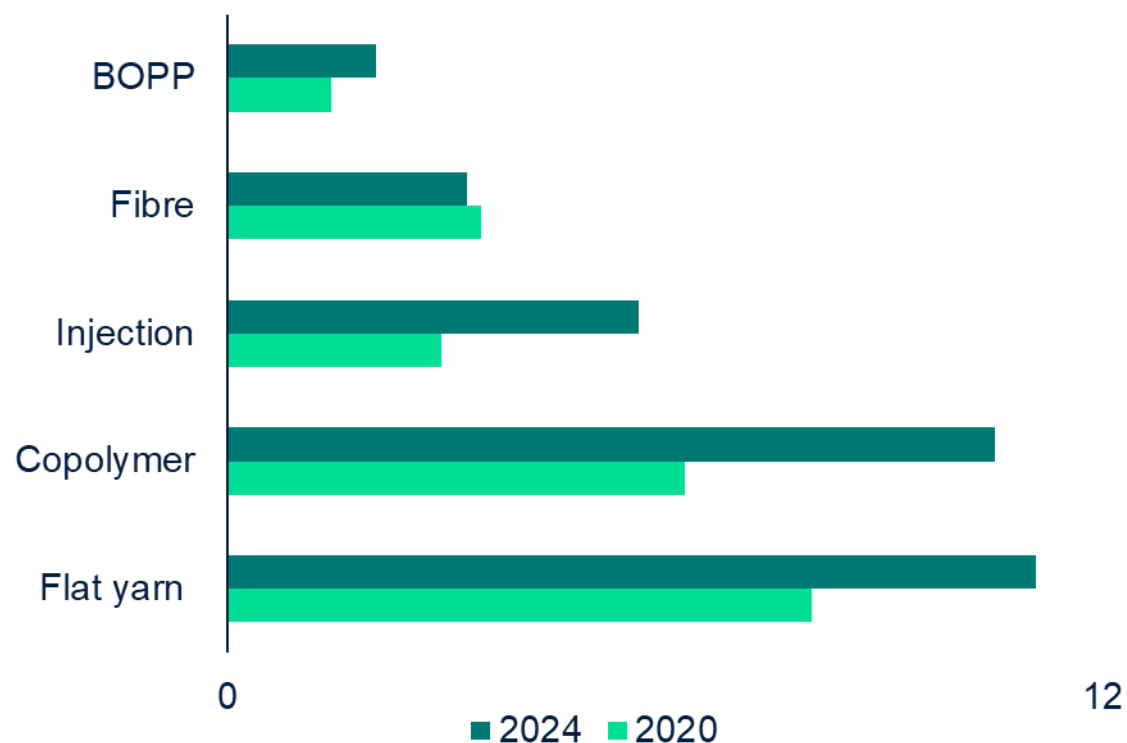


- Technology advancements drive POE, metallocene, and UHMWPE localization
- Rising self-sufficiency heightens import market competition
- Anticipated increase in China's PE exports over the next 5 years

China rises as a key global player in the PP market amid domestic growth



China granular PP output by major grade
(million tonnes, 2020 vs 2024)

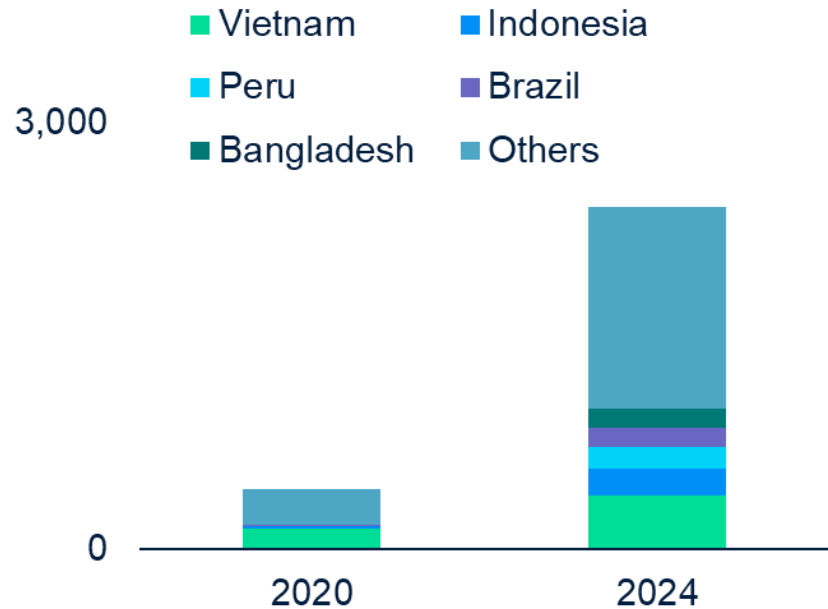


- Persistent overcapacity spurs a steady rise in China's PP exports
- Margin incentives boost copolymer production
- Copolymer demand surge is fuelled by the performance needs of EVs and home appliances
- China's reliance on copolymer imports, especially PP and special grades, might decrease over time

China's PP producers to seek opportunities for higher export

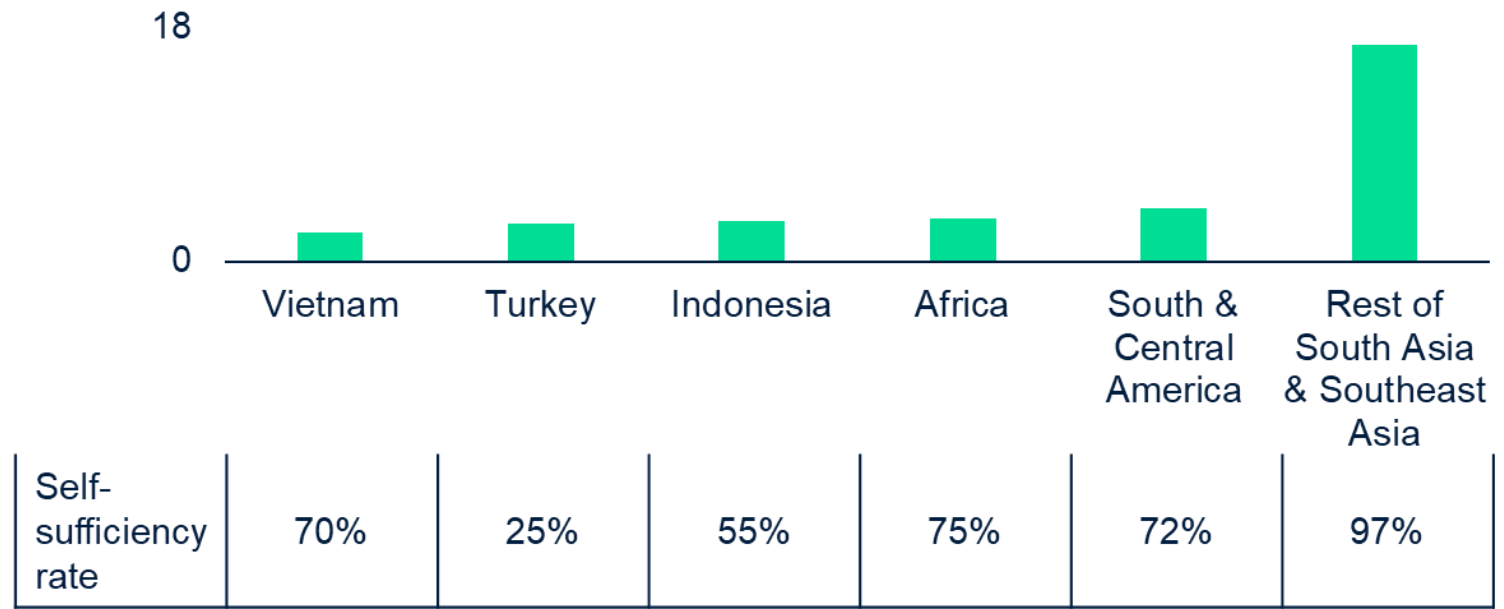


China PP exports by major destination
('000 tonnes, 2020 vs 2024)



Source: ICIS Supply and Demand Database

PP exports potential destination
(million tonnes, 2030)



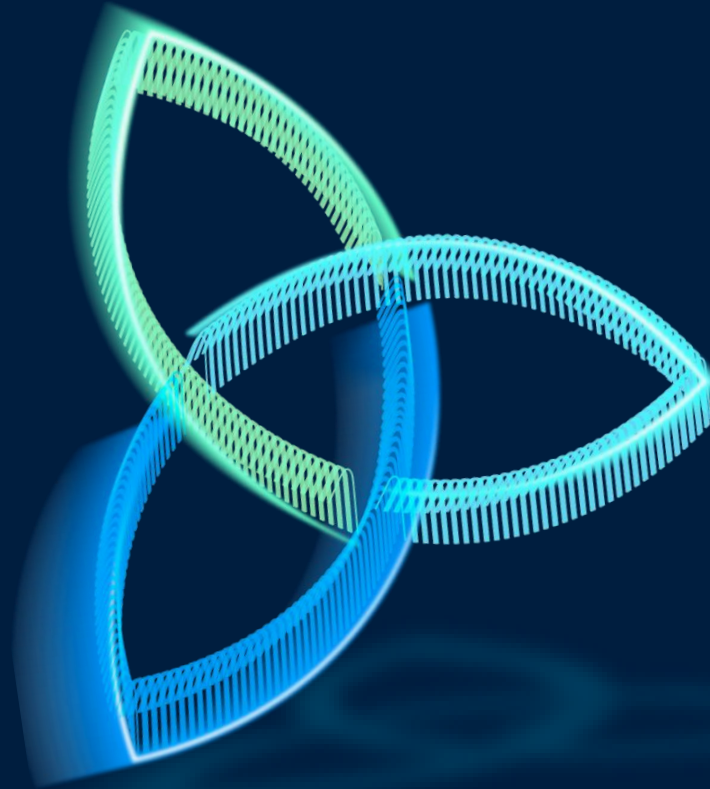
- Geopolitical risks, extreme weather, and unexpected shutdowns overseas lead to more frequent deficits, encouraging increased PP exports from China
- PP export patterns are driven by arbitrage opportunities, with a primary focus on targeting SE Asia
- Chinese PP producers actively pursue opportunities and establish networks to facilitate a steady export flow ¹²

Summary



Tariff disputes to hamper supply chain efficiency and fuel innovation in China's consumption growth

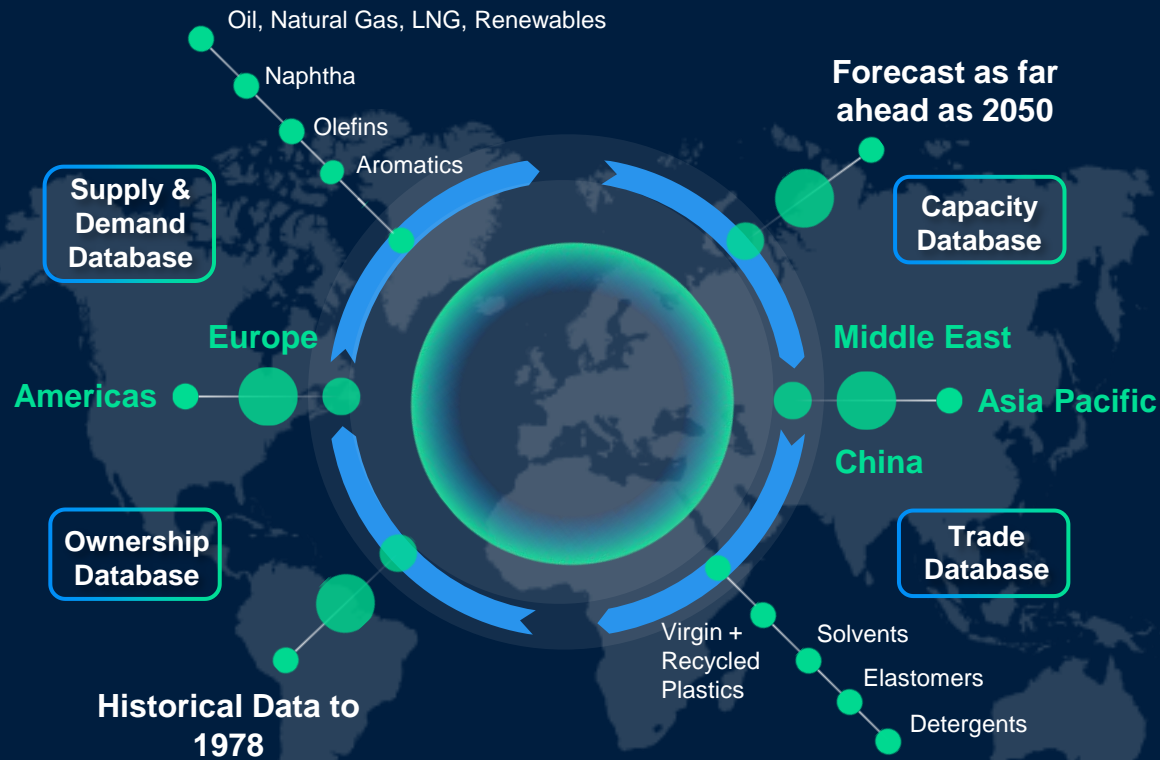
China rises as a key global player in the polyolefins market amid domestic growth



The supply and demand of polyolefins in China are projected to reach equilibrium post-2028

Polyolefins markets facing permanent shutdowns, technological advancements, and demand segmentation

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