Prospects for phenol and acetone in the New Expansion Cycle

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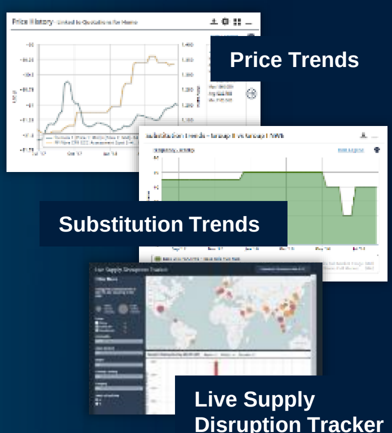
About us

ICIS is a global source of **Independent Commodity Intelligence Services** – connecting data, markets and customers to create a comprehensive, trusted view of global commodities markets, enabling smarter business decisions that help optimise the world’s resources.

To deliver value where it matters most

Descriptive analytics

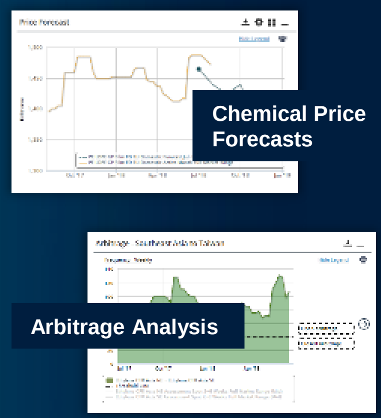
What happened?



- Regulatory and impact analysis
- Real time cargo tracking
- Real-time global news coverage
- Live Disruptions Tracker

Diagnostic analytics

Why did it happen?



- Carbon Analytics
- LNG Supply Forecasts
- Price Driver Analytics

Predictive analytics

What will happen?

- Short-term Power Analytics
- Long-term Power Forecast
- Petchem, Energy and Fertilizer price forecasts
- LNG Supply and Demand forecasts
- Carbon Analytics

Prescriptive analytics

Why will it happen and what can I do?

- ICIS continues to invest in providing tools with prescriptive capabilities

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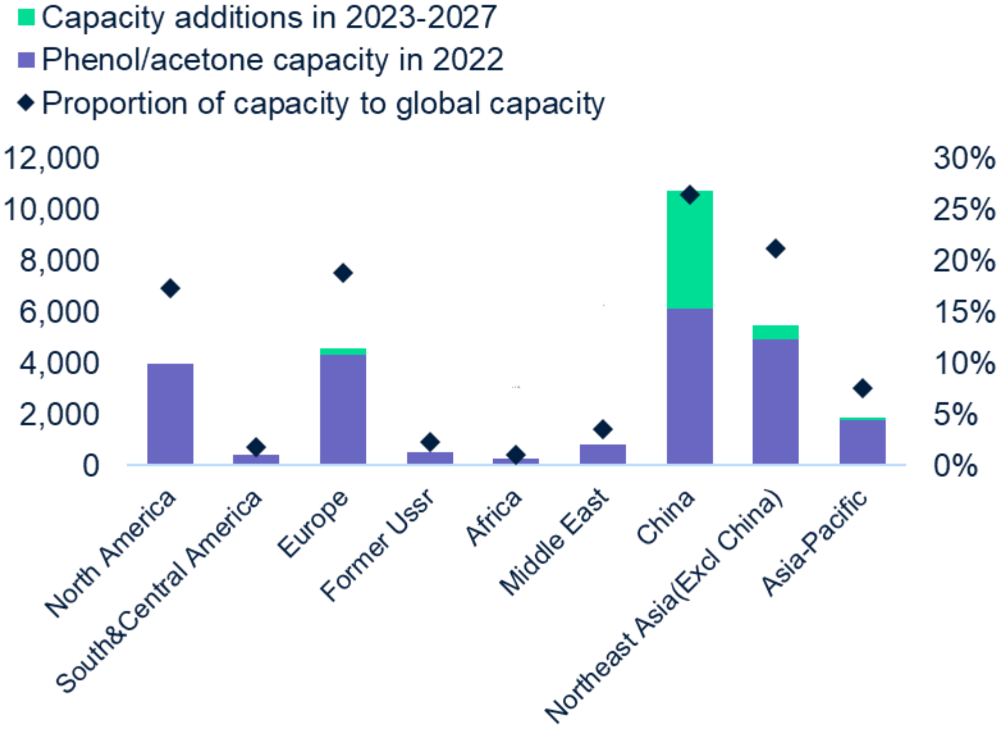
Asian phenol/acetone supply-demand landscape and market outlook

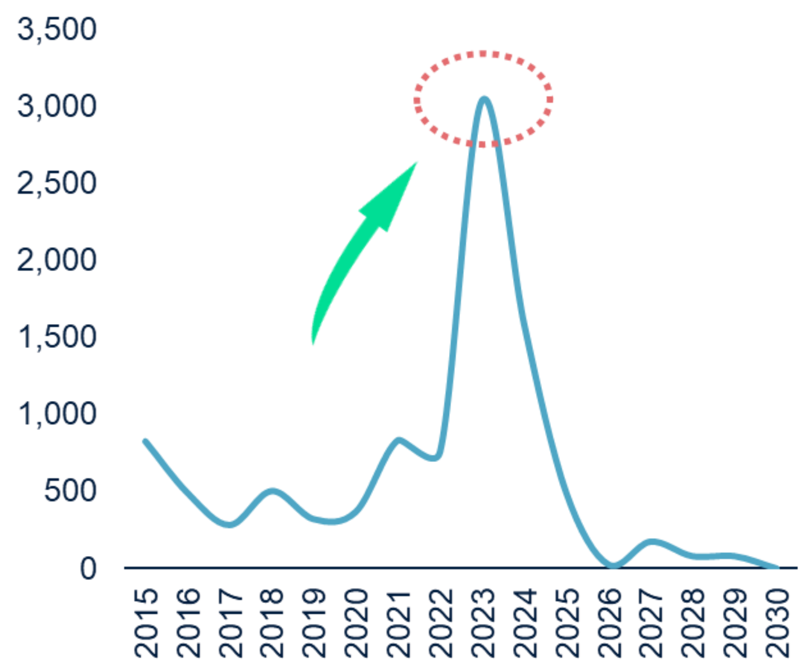
Asian phenol/acetone at the peak of capacity expansion cycle

- Asia is the world's largest producer of phenol and acetone, followed by Europe and North America
- The latest capacity expansion wave in Asia began in H2 2020 and will peak in 2023

Global phenol/acetone capacity additions distribution
('000 tonnes, 2023-2027)



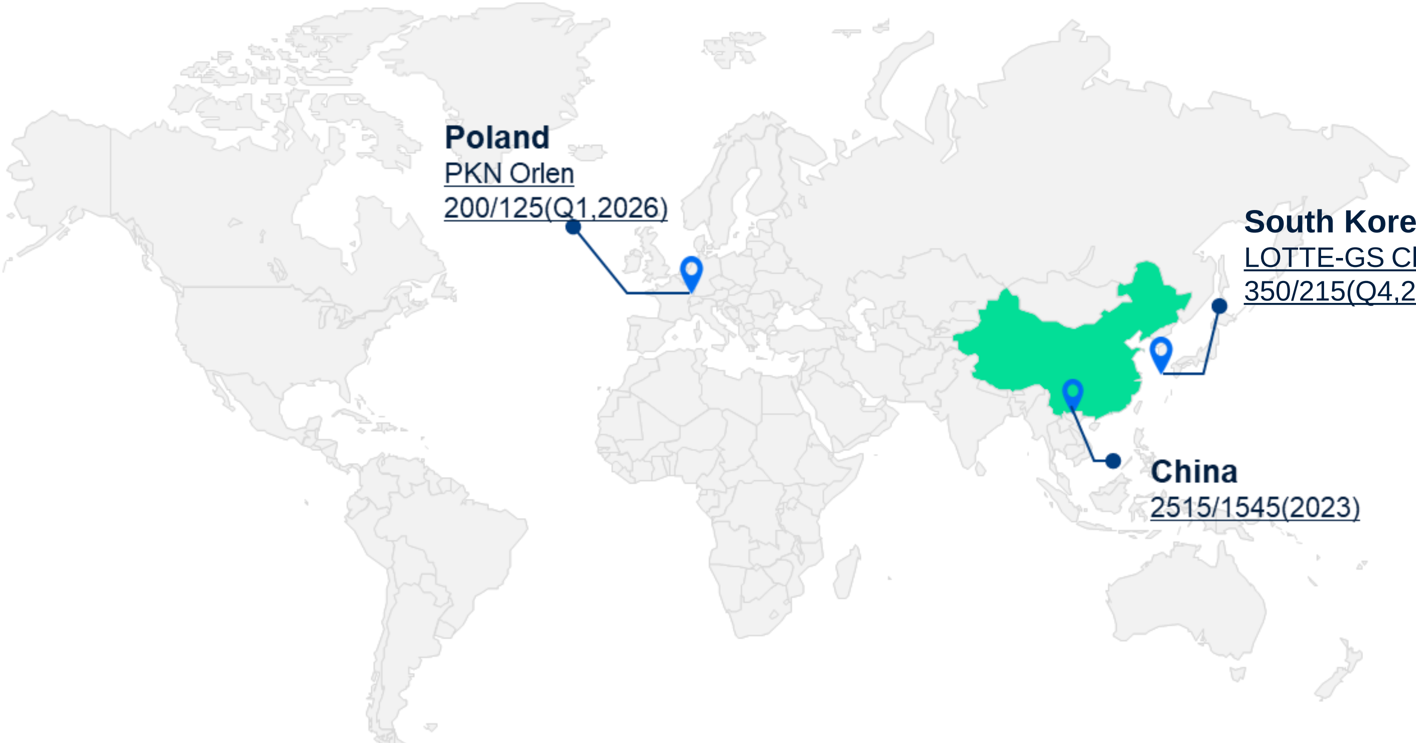
Asia phenol/acetone capacity additions
('000 tonnes,2015-2030)



Source: ICIS Supply and Demand Database

China - growth engine of global phenol/acetone expansion

Global new phenol/acetone projects
('000 tonnes,2023-2027)



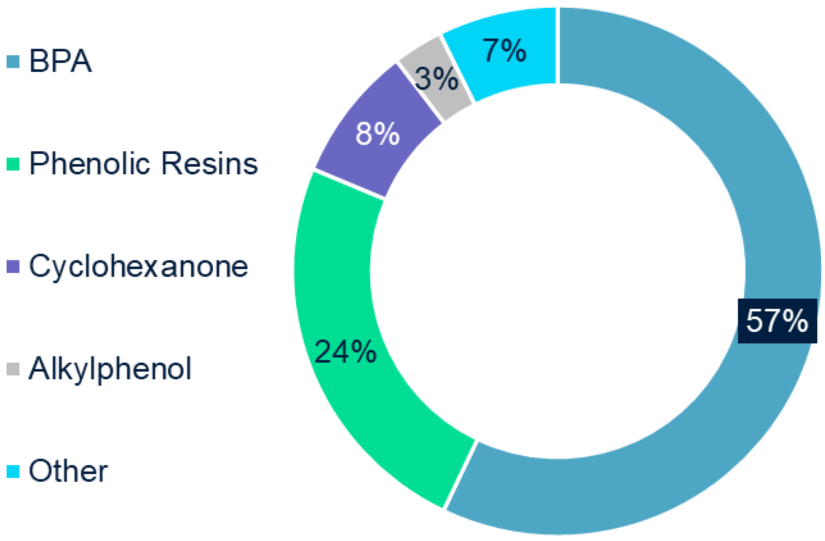
- China leads global phenol/acetone capacity expansion, with its capacity growth to reach 48% in 2023
- Additionally, there has been some market talk about plans for projects in China to launch after 2025

Source: ICIS Supply and Demand Database

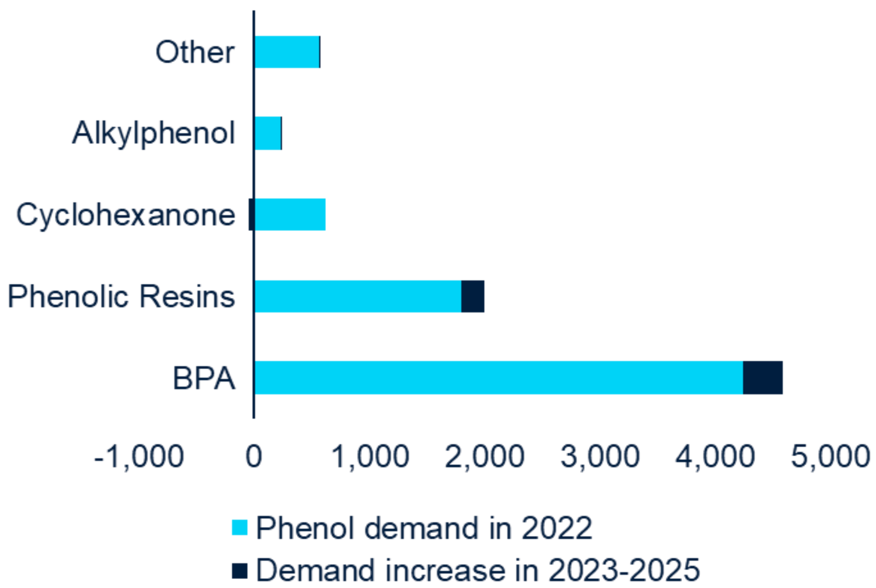
BPA remains a key driver behind Asian phenol demand growth

- BPA capacity expansion lags behind that of downstream PC. Notable oversupply pressure of BPA may leave limited room for further capacity expansion
- Many small-scale phenolic resins plants that do not meet environmental requirements are expected to shut

Asia phenol demand by segment (%, 2022)



Asia phenol demand ('000 tonnes, 2022-2025)

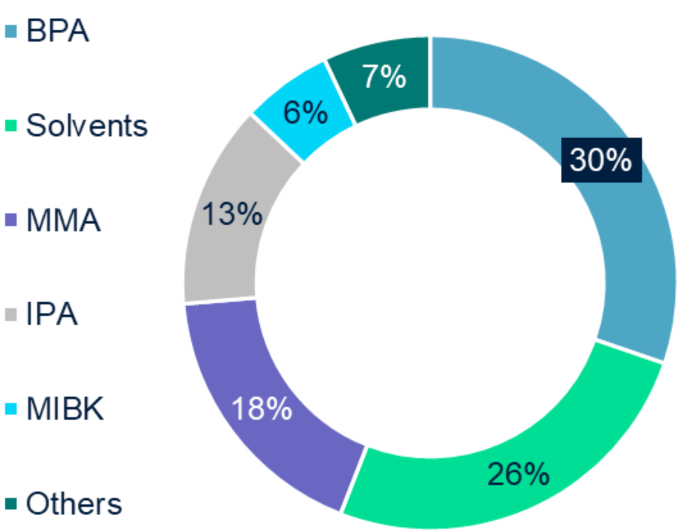


Source: ICIS Supply and Demand Database

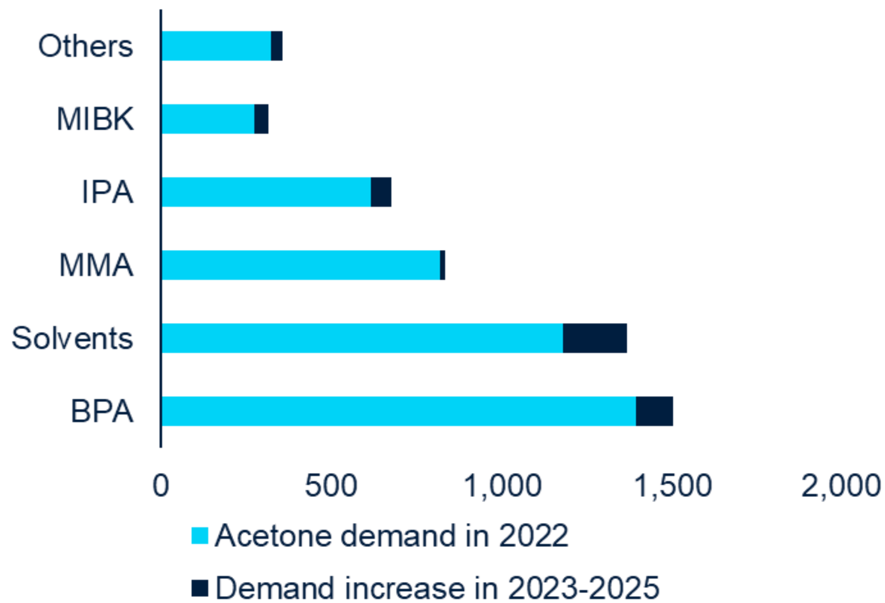
BPA, solvents are the key drivers of Asian acetone demand growth

- The growth in demand for solvents will be impacted by environmentally friendly water-based coatings in the future as high VOC coatings are gradually prohibited
- Other downstream sectors remain in low utilisation rates due to surplus supply and weak demand

Asia acetone demand by segment
(%, 2022)



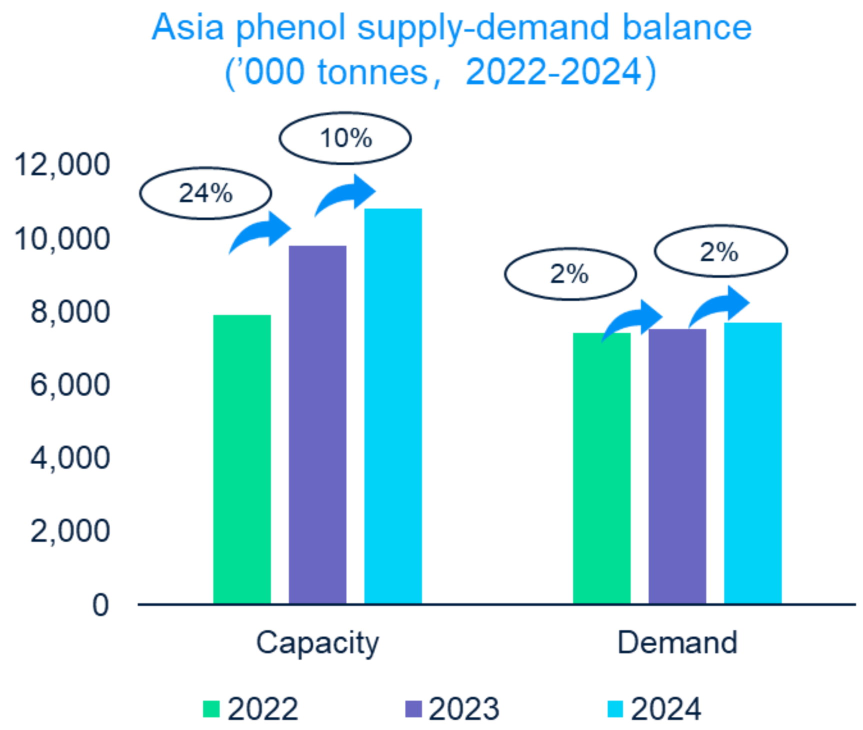
Asia acetone demand
('000 tonnes, 2022-2025)

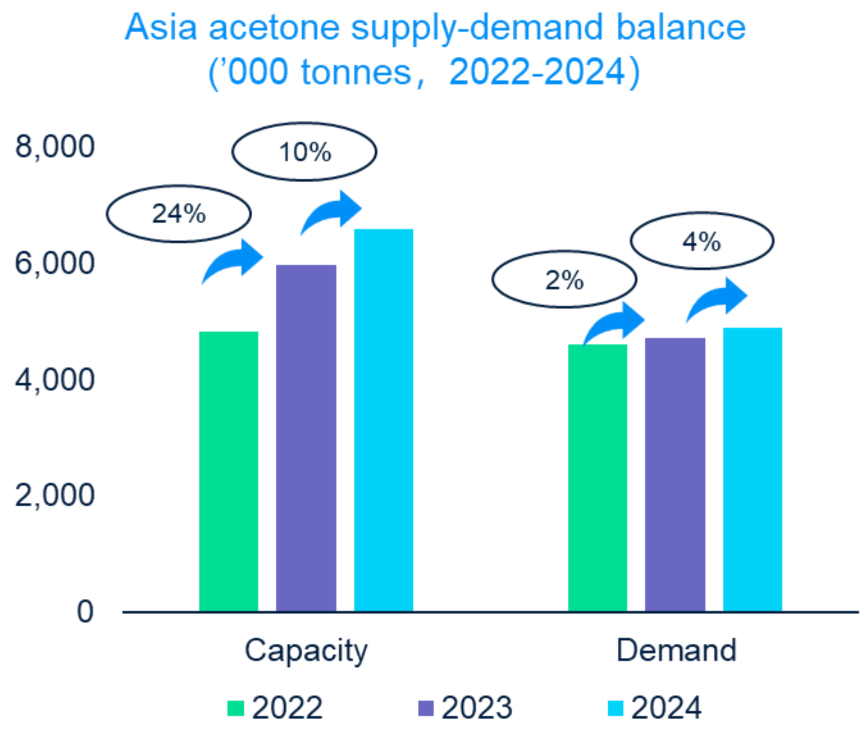


Source: ICIS Supply and Demand Database

Supply increase outpaces demand growth, intensifying supply-demand imbalance

- China’s domestic demand is likely to continue reviving, as its economy is gradually riding out the COVID-19 impact, but that still takes time
- Supply-demand imbalance will worsen, as the increase in capacity will far outpace that in demand in 2023-2024



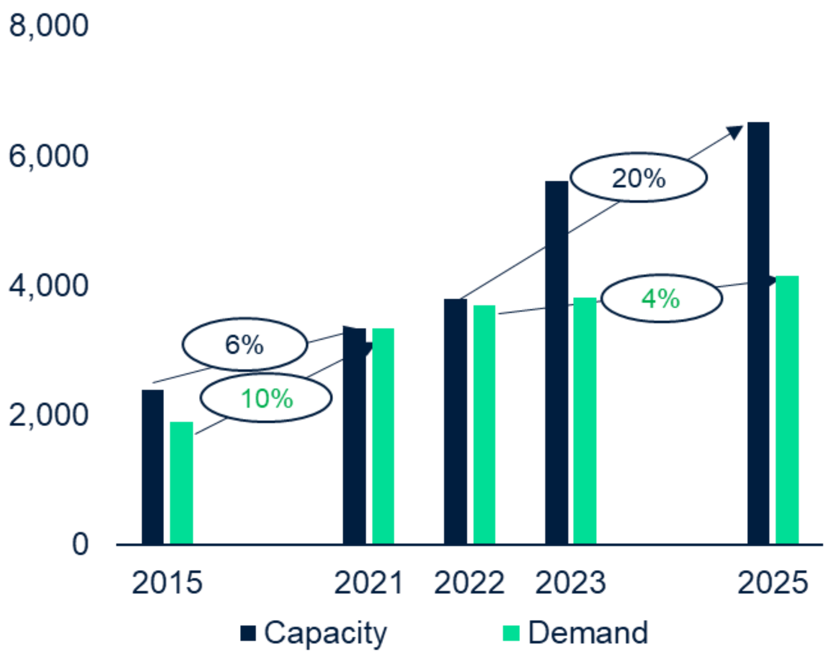


Source: ICIS Supply and Demand Database

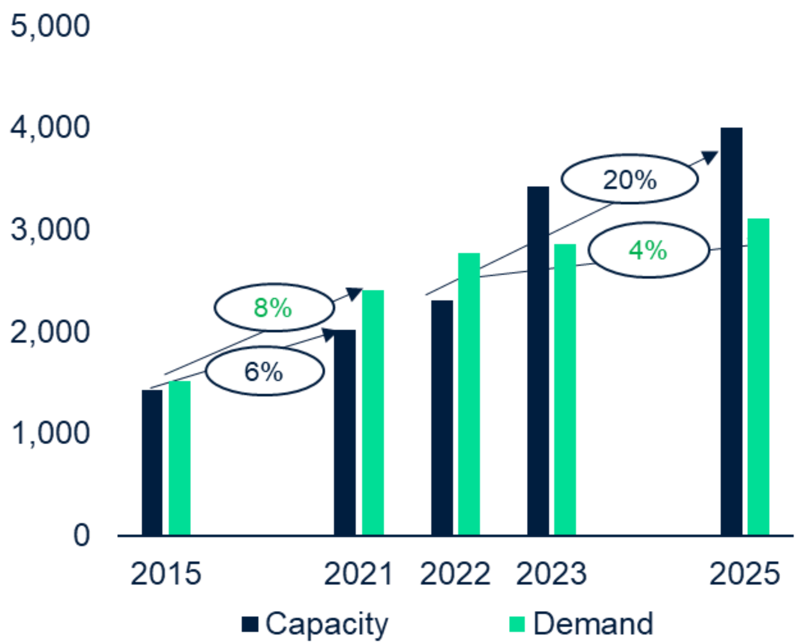
China to shift from balanced-to-tight supply to surplus

- China's phenol/acetone demand growth outweighed supply increase in 2015-2021, driven by strong demand from downstream BPA, MMA and IPA industries
- Future supply-demand pattern to shift, oversupply pressure significant

China phenol supply-demand balance
('000 tonnes, 2015-2025)



China acetone supply-demand balance
('000 tonnes, 2015-2025)

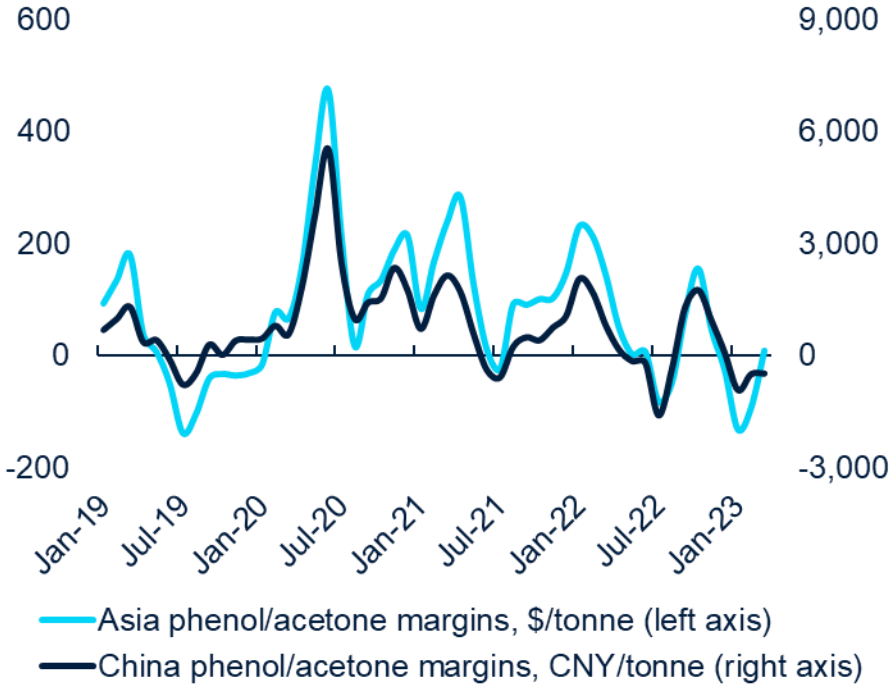


Source: ICIS Supply and Demand Database

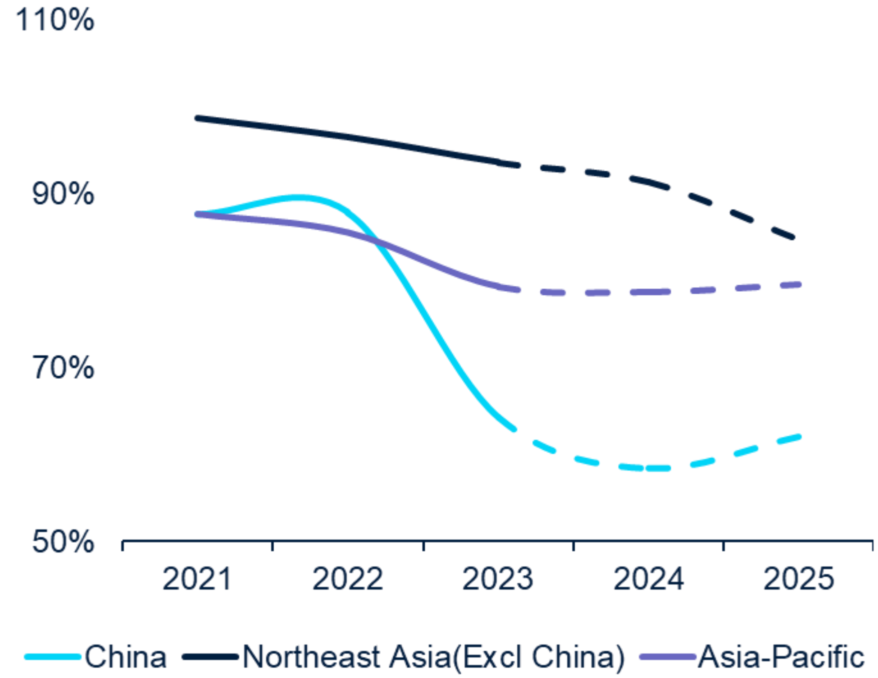
Squeezed margins dampen enthusiasm in production

- Asian phenol/acetone producers' margins dropped into the negative territory, squeezed by elevated feedstock costs and decreased products prices amid new capacity release
- Producers' enthusiasm in production was dampened. Hence, China's phenol/acetone units run rate is expected to slump, and in Asia, phenol/acetone products will mainly be reserved for producers' captive use

Asia phenol/acetone margins
($/tonne, CNY/tonne, Jan 2019-Mar 2023)



Asia's phenol/acetone units run rate
(2021-2025)

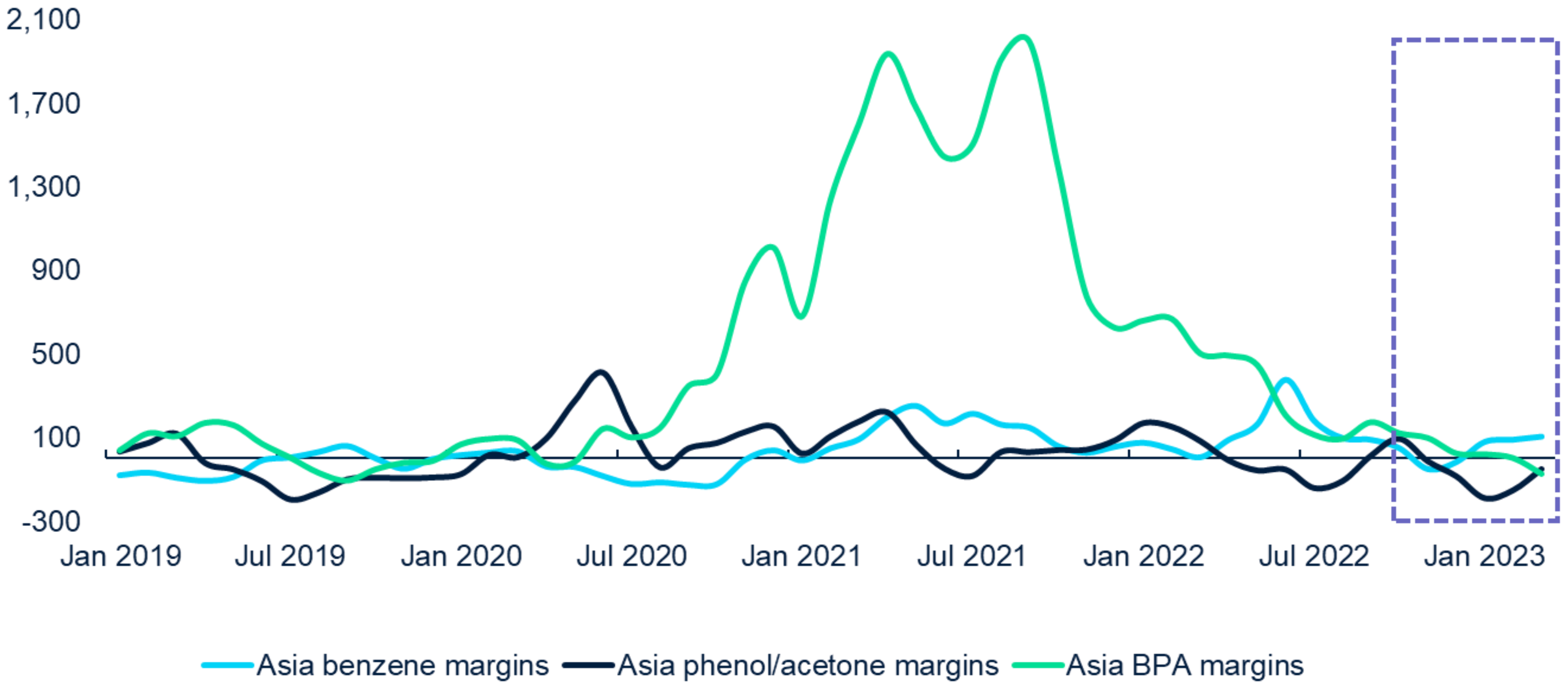


Source: ICIS Pricing, ICIS Supply and Demand Database

New trends in Asian phenol/acetone industry chain amid intensive capacity expansion

Margins redistributed along the phenol/acetone industry chain, tilting towards upstream in long term

Margins along phenol/acetone industry chain in Asia
($/tonne, Jan 2019-Jan 2023)

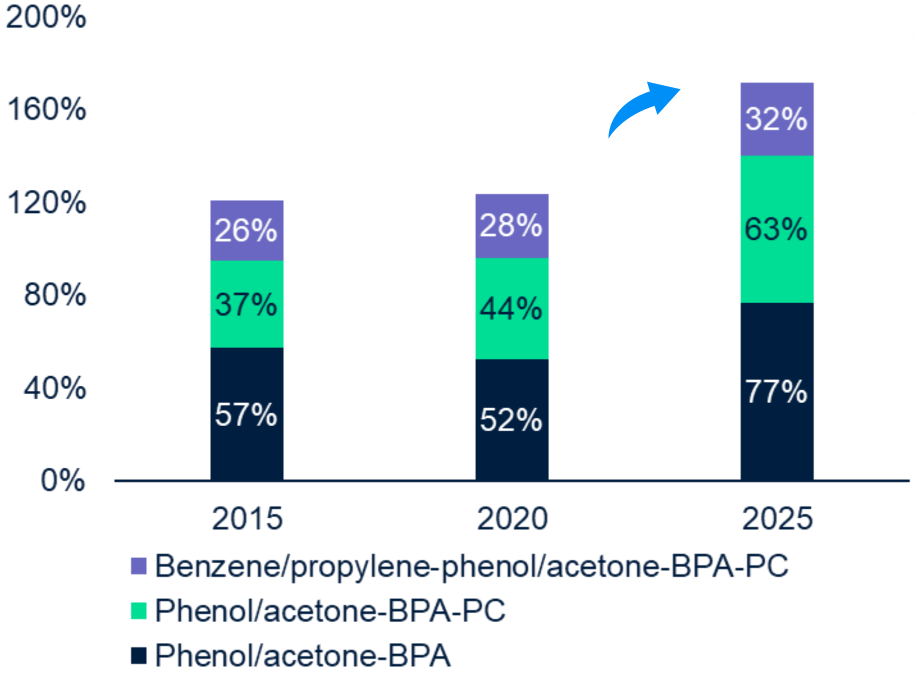


Source: ICIS

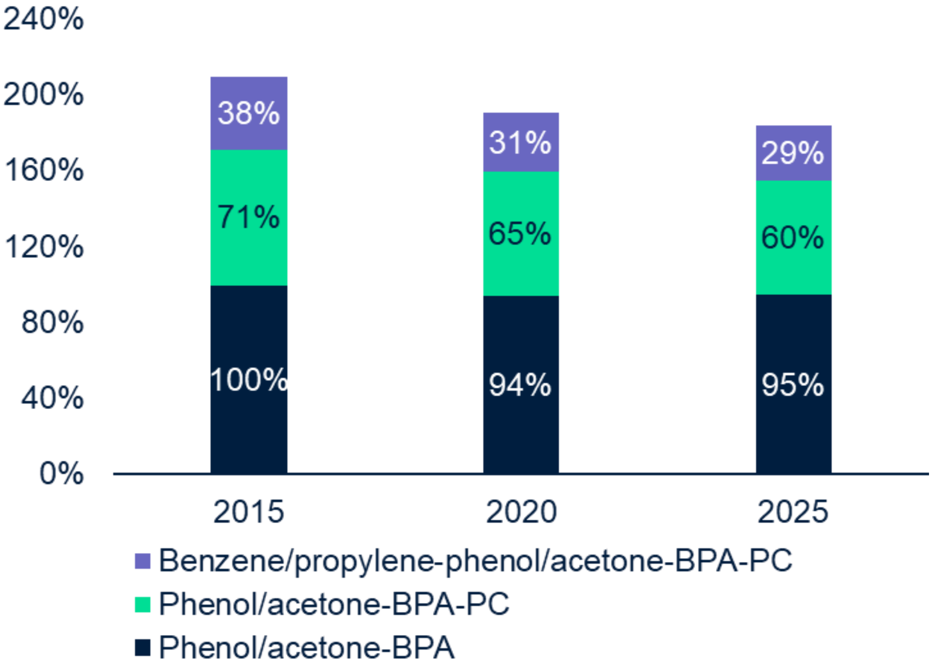
Industry integration and large-scale projects are key trends

- Phenol/acetone industry chain is highly integrated in Asia (outside China), but competitiveness is weakening
- Operation of refining & petrochemical integrated projects has accelerated the integration progress of China’s phenol/acetone industry chain

Ratios of integrated projects in China (2015-2025)

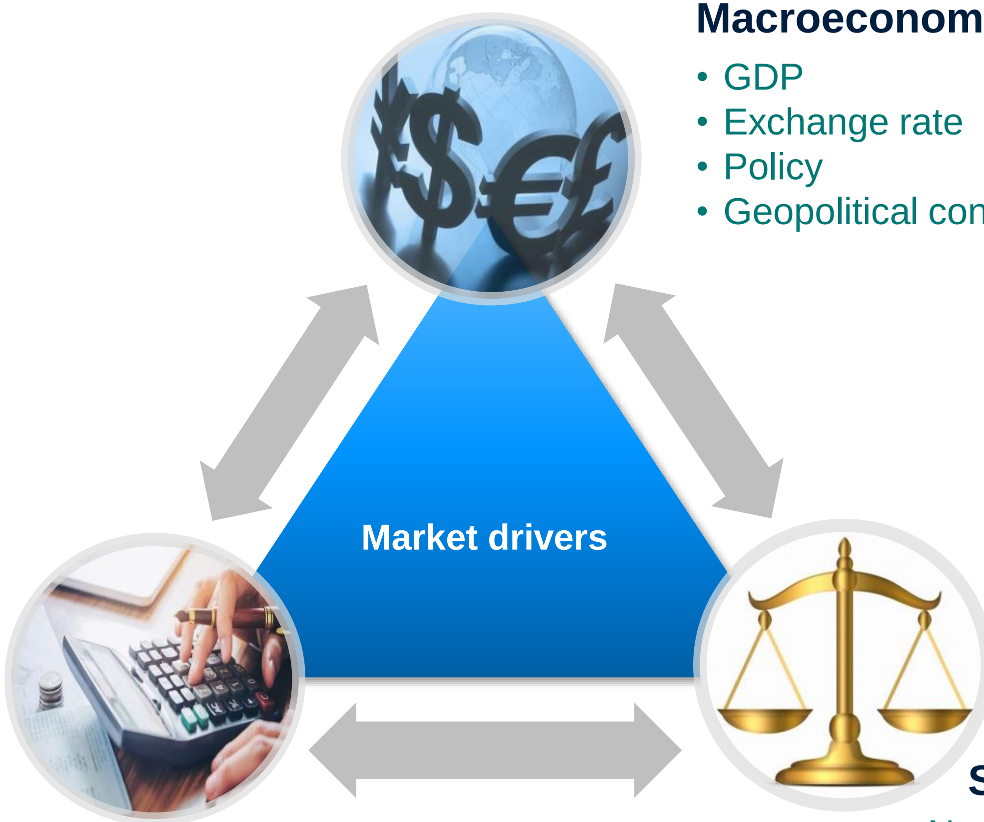


Ratios of integrated projects in Asia (outside China) (2015-2025)



Source: ICIS Supply and Demand Database

Prices expected to be volatile, fluctuating around the breakeven level



Macroeconomy
- GDP
- Exchange rate
- Policy
- Geopolitical conflicts

Cost
- Crude oil/naphtha
- Benzene/Propylene

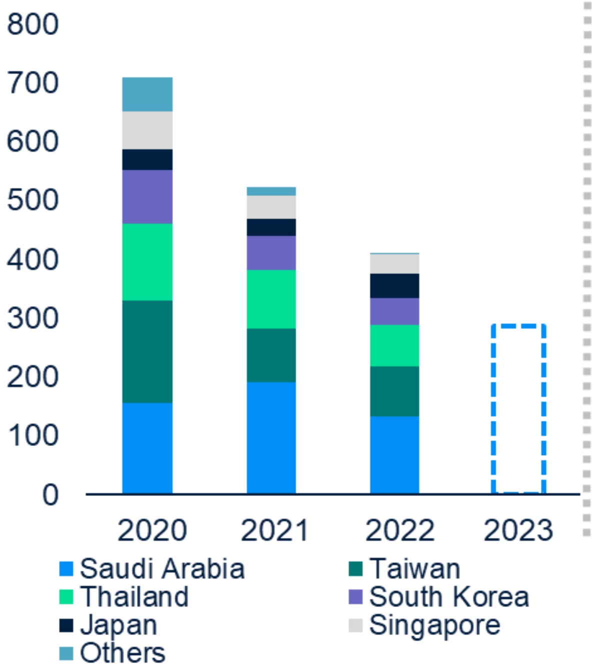
Supply-demand balance
- New capacities progress
- Maintenance and operating rates
- End-user demand recovery
- Seasonality

Global phenol/acetone trade flow change

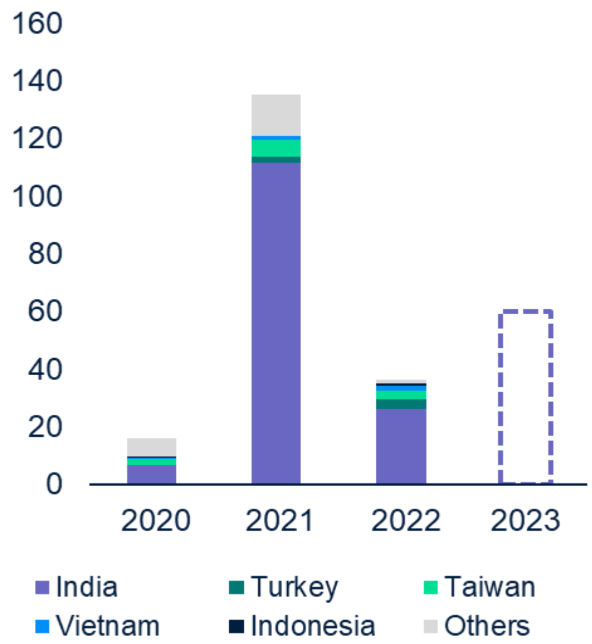
New capacities squeeze phenol imports, export chances available

- Higher self-sufficiency rate in China has squeezed the import market, with Saudi Arabia, Japan, South Korea, Taiwan and southeast Asia remaining major import origins
- India is the key export destination of China-origin cargoes

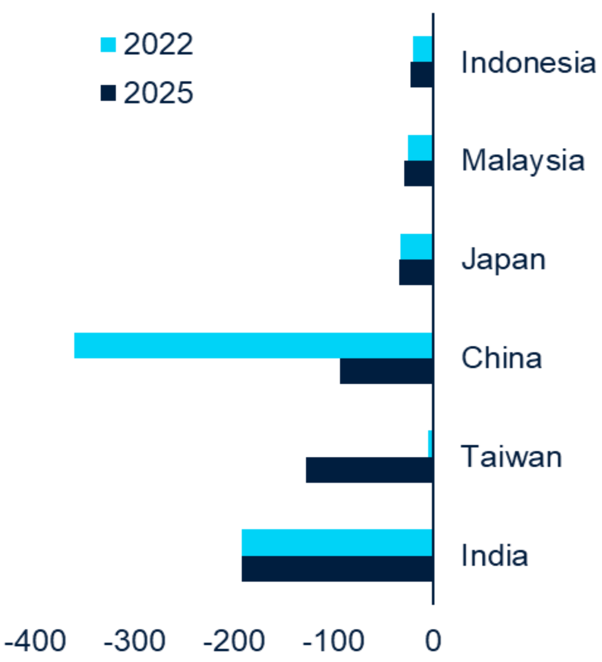
China's phenol imports ('000 tonnes, 2020-2023)



China's phenol exports ('000 tonnes, 2020-2023)



Asia phenol supply gap ('000 tonnes, 2022 & 2025)

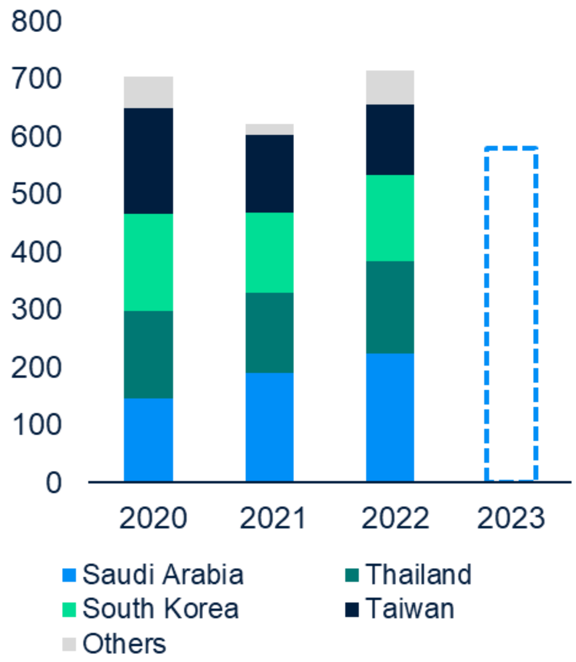


Source: GAC, ICIS Supply and Demand Database

Capacity expansion has less impact on acetone imports than on phenol imports

- Acetone import dependency rate is around 25%, higher than that of phenol. China still needs to bridge its supply gap with imports in the near term
- Export destinations are quite scattered. Exports are mostly for short-term arbitrage margins

China's acetone imports
('000 tonnes, 2020-2023)



China's acetone exports
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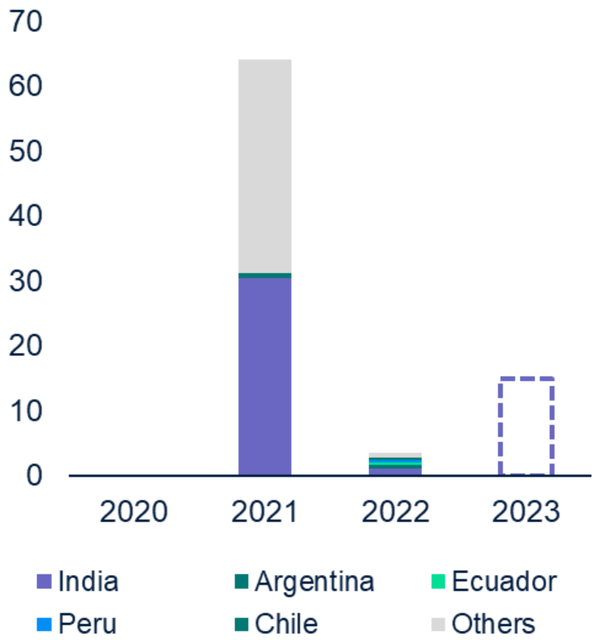
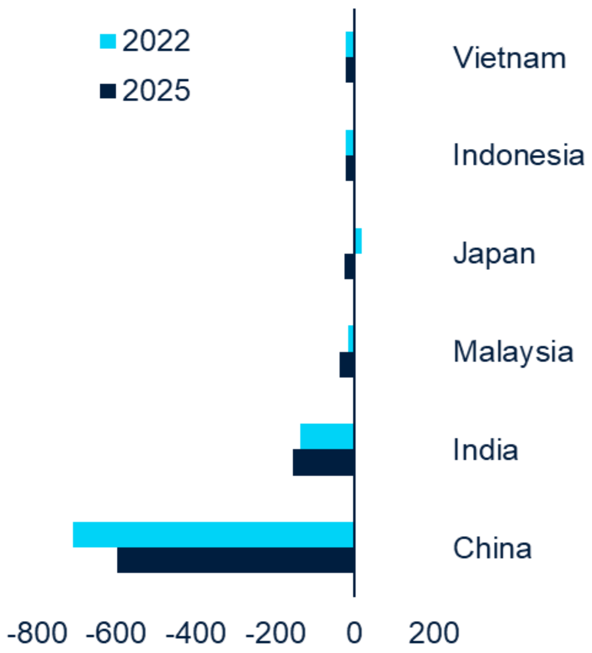


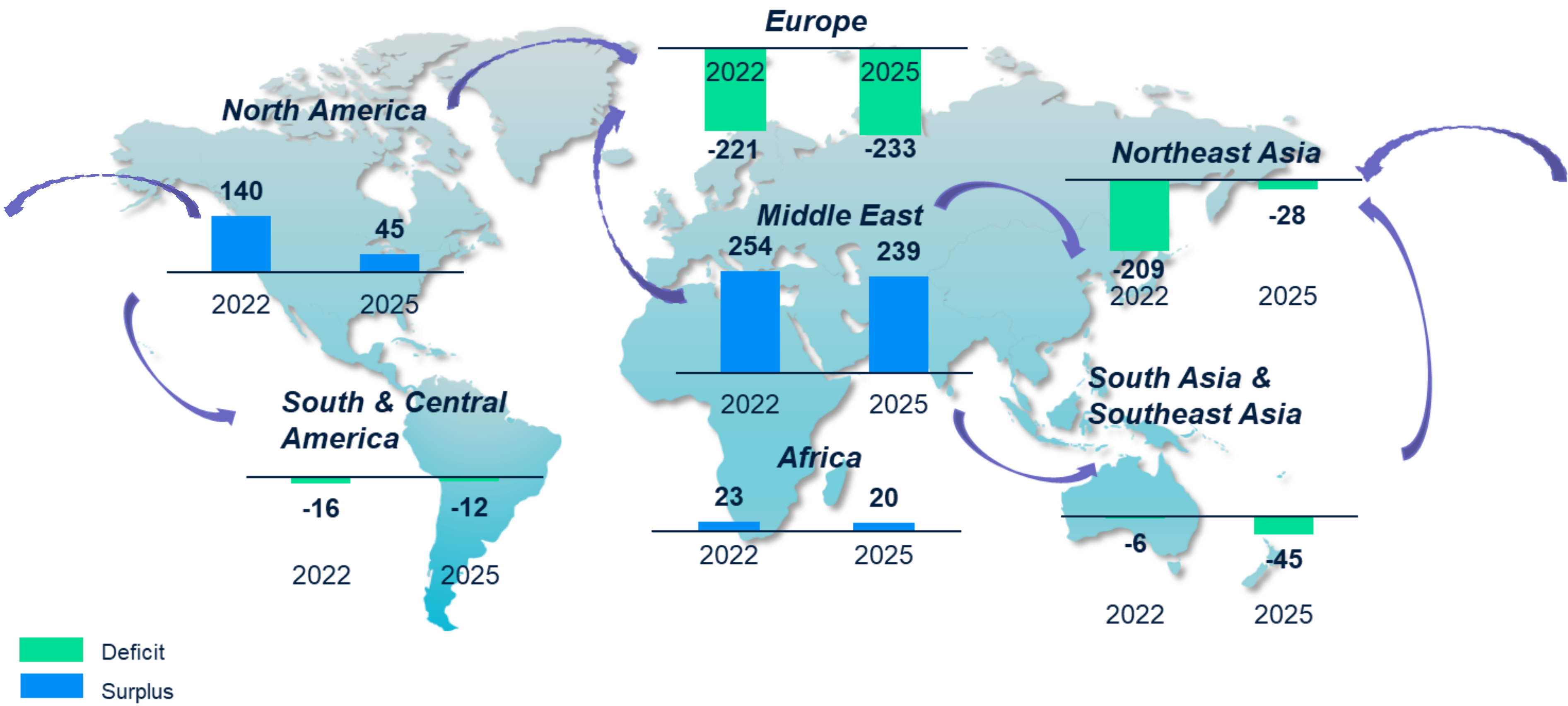
Asia acetone supply gap
('000 tonnes, 2022 & 2025)



Source: GAC, ICIS Supply and Demand Database

The Middle East is the world's largest net exporter, while Europe is the largest net importer

Global phenol trade flow, 2022 vs 2025
('000 tonnes)



Note: negative number reflects deficit

Source: ICIS Supply & demand database

Note: The data is based on the latest balance data published in May 2023

The Middle East is the world's largest net exporter, while NE Asia remains the largest net importer

Source: ICIS Supply & demand database

Note: The data is based on the latest balance data published in May 2023

Summary

- The latest round of capacity expansion in Asia started from H2 2020 and is expected to peak in 2023. China leads in the growth of phenol/acetone capacities in the world
- BPA is still the key driver for phenol/acetone demand in Asia, but this may not be sustainable due to oversupply pressure
- Further oversupply in phenol/acetone market will squeeze margins
- Intensive capacity expansion leads to margin redistribution in phenol/acetone industry. Margins tilts towards the upstream. Industry integration and large-scale projects are key trends
- Northeast Asia remains a net importer of phenol and acetone, but the deficit of phenol has significantly decreased, and the Middle East remains the largest net exporter of phenol and acetone globally

Thank you

Aromatics and derivatives

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