

Aromatics Market Outlook

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Methanol

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Ethylene

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Styrene

Toluene

Paraxylene

Oleochemicals

Fatty Acids

Fatty Alcohols

Glycerine

Pine Chemicals

Chlor-alkali

Caustic Soda

Chlorine

Polymers

Polyethylene

Polypropylene

PVC

PS

PET/Polyester

Recycled Polymers

Polyurethanes

Isocyanates

PO

Propylene Glycols

Polyols

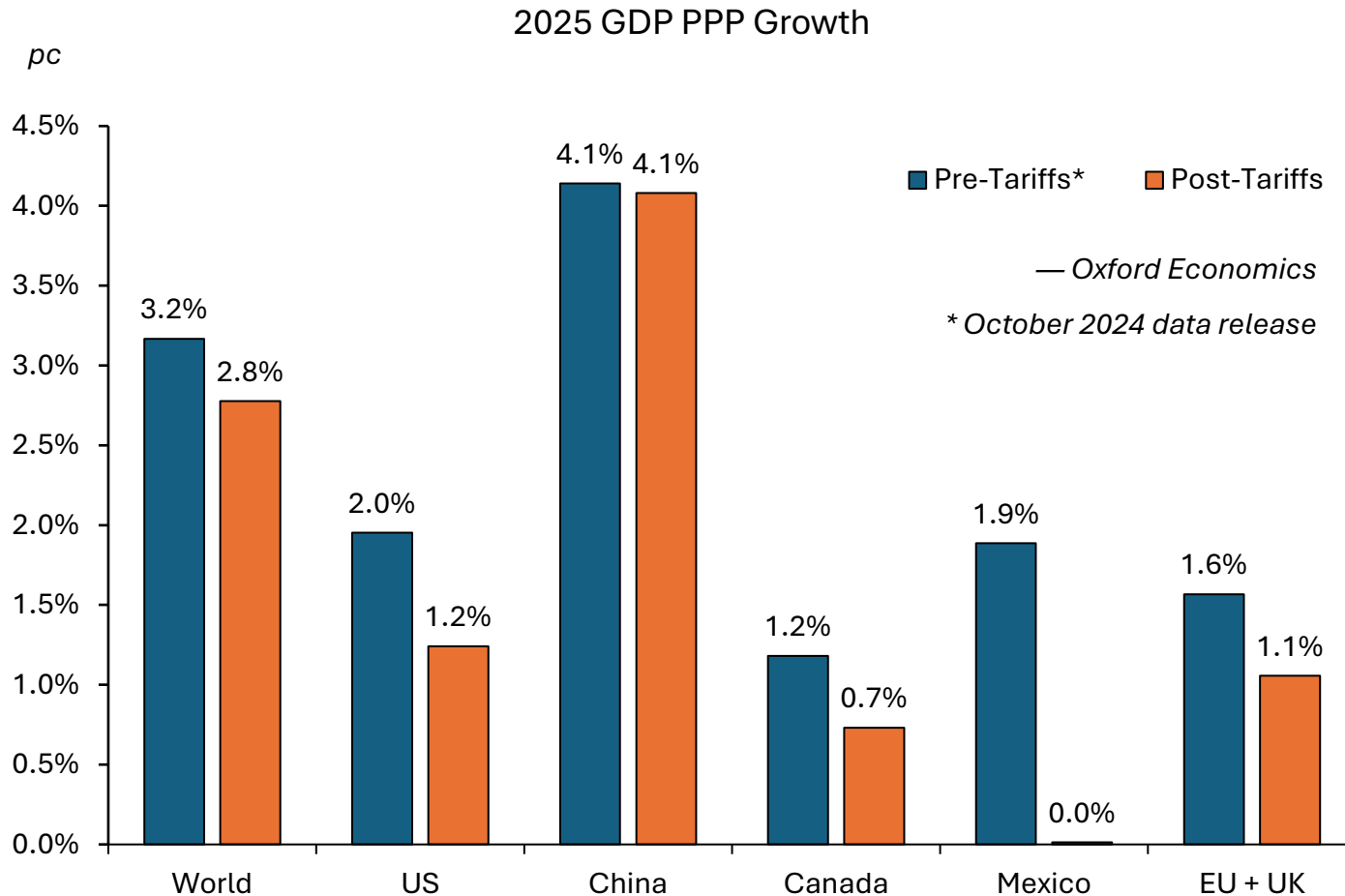
Ethylene Oxide and Derivatives report launched in Oct'24



Contents

- 1. Growth Drivers**
- 2. PX Outlook**
- 3. PTA Outlook**
- 4. Impact of tariffs**
- 5. Conclusions**

US GDP growth almost halved; Chinese economy not expected to face significant impact

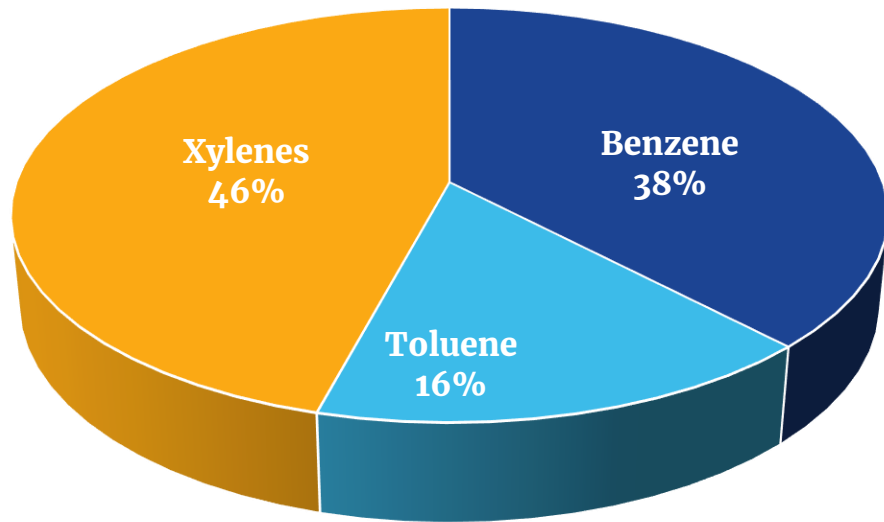


■ Whilst Oxford Economics sees US GDP PPP growth slashed to 1.2pc in 2025 as a result of the tariffs, China sees a much less significant downgrade for several key reasons:

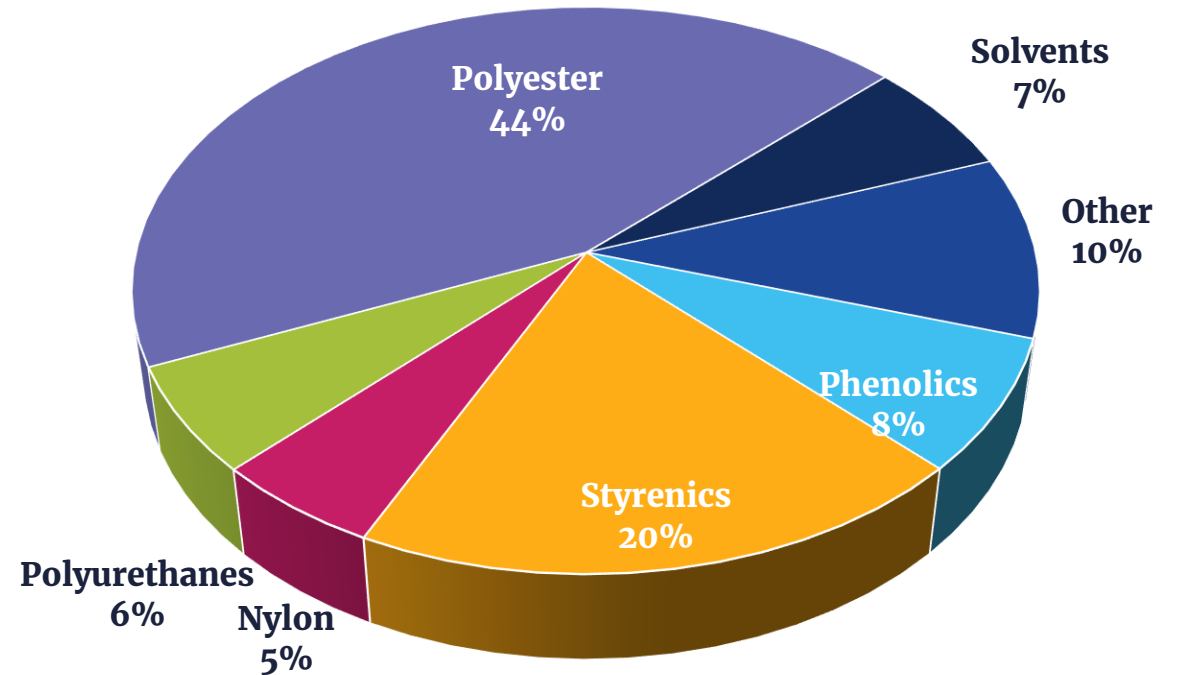
- Chinese exports to the US account for just 3pc of China's GDP
- China's overall trade surplus provides policy space to respond to a trade war
- Devaluing the renminbi will cushion the impact of facing higher US tariffs
- A prolonged trade with the US may provide the stimulus to transition the country more so towards a consumption-led economy rather than a production-focused economy

Aromatics production & consumption...Polyester the main driver

Global Production, 2024
(around 141 Mn T)



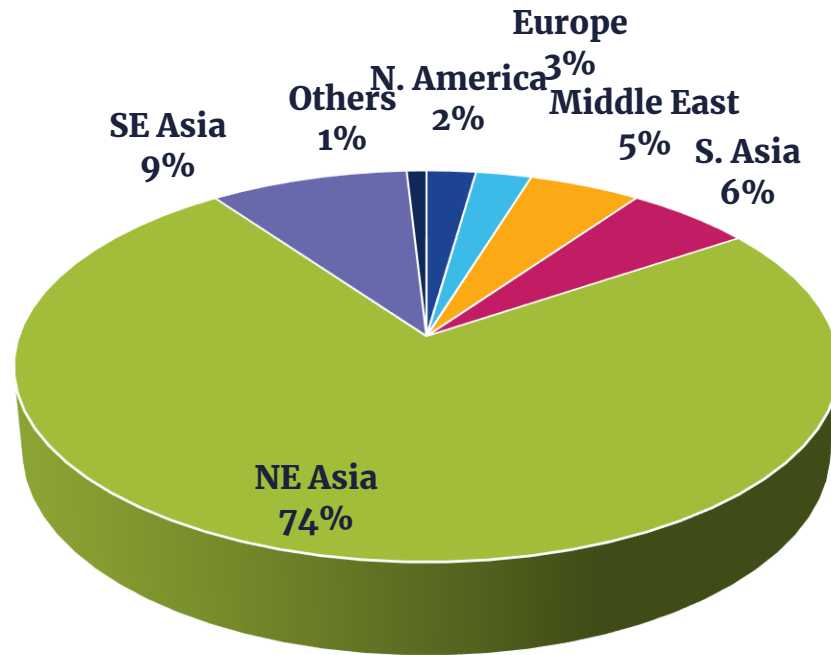
Global Consumption by End Use, 2024



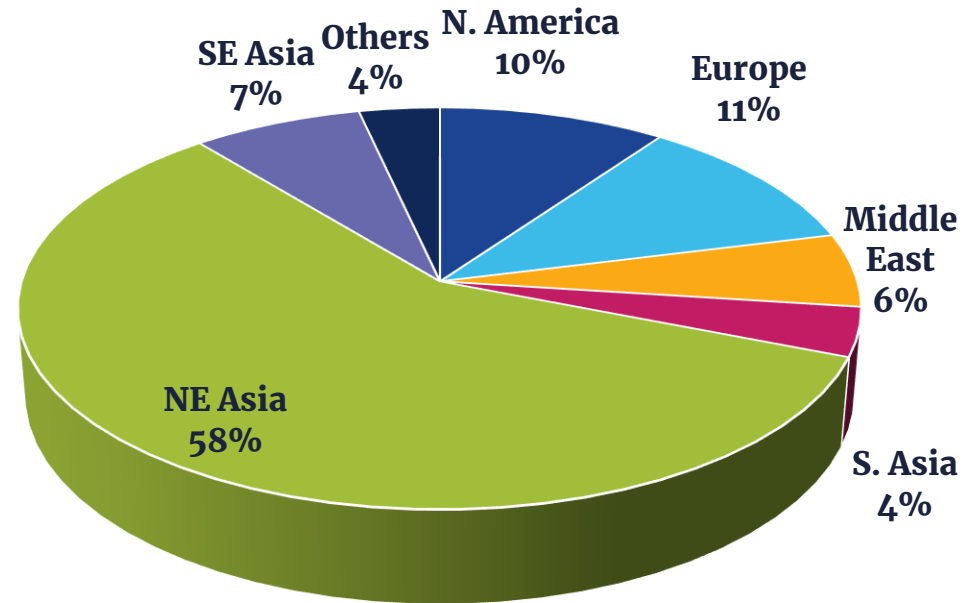
- Globally, on-purpose production of Paraxylene from Xylenes is the largest Aromatics product, driven by the dominant share of Polyester in end-use segments and its nearly 60% share in consumption growth.
- Other end-use segments are mature and slow growing. Polyurethanes is a high growth market, but from a small base.

Asia dominates production, especially for PX

Global PX Production, 2024
(around 59 Mn T)

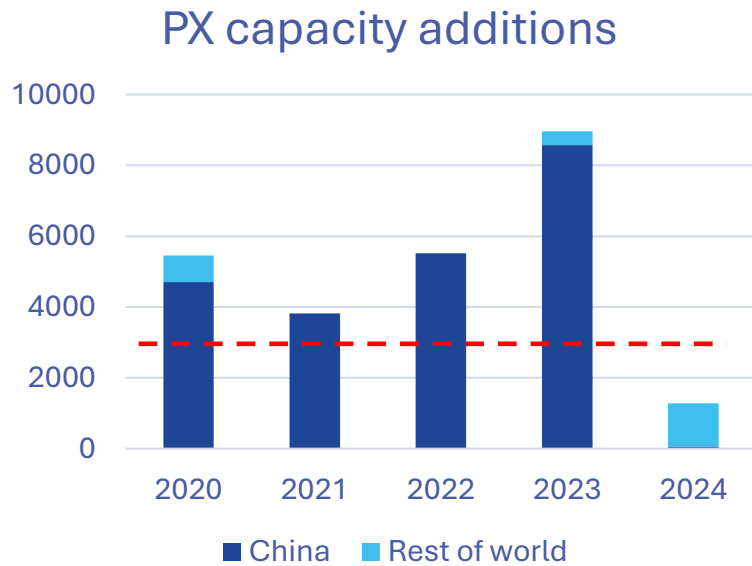


Global BZ Production, 2024
(around 53 Mn T)

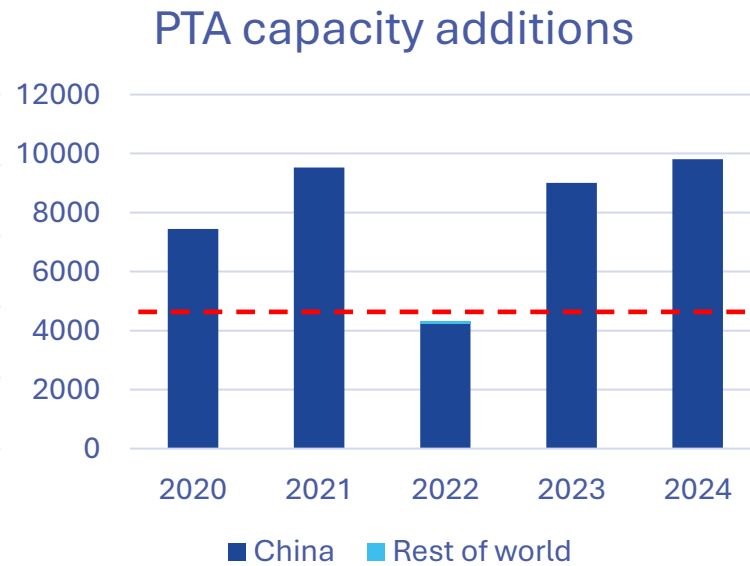


- Geographical break-up of PX production mirrors the dominance of Asia, particularly China, in Polyester.
- Benzene production is slightly less skewed towards Asia, as derivatives consumption holds up in the West.

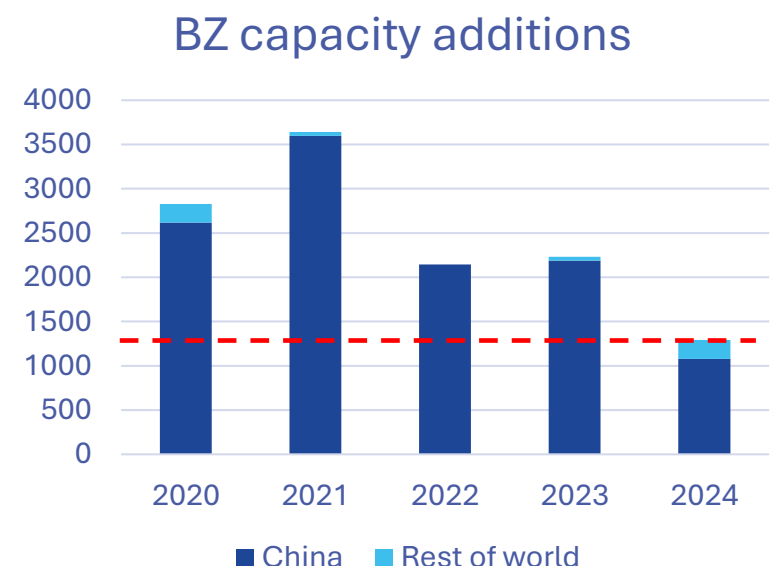
Surge in new capacity over the last 5 years has been driven by China



4.3 Mn T capacity permanently shut during 2020-24



4.5 Mn T capacity permanently shut during 2020-24

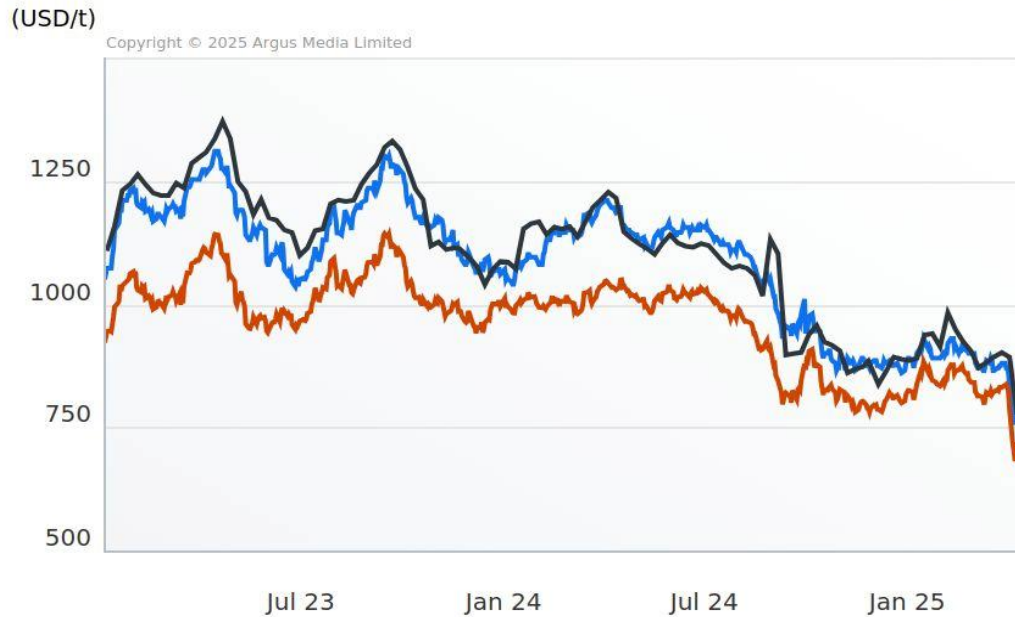


--- Average annual demand growth

All figures in '000 T

Net capacity addition significantly higher than demand growth.

PX Price and Spreads



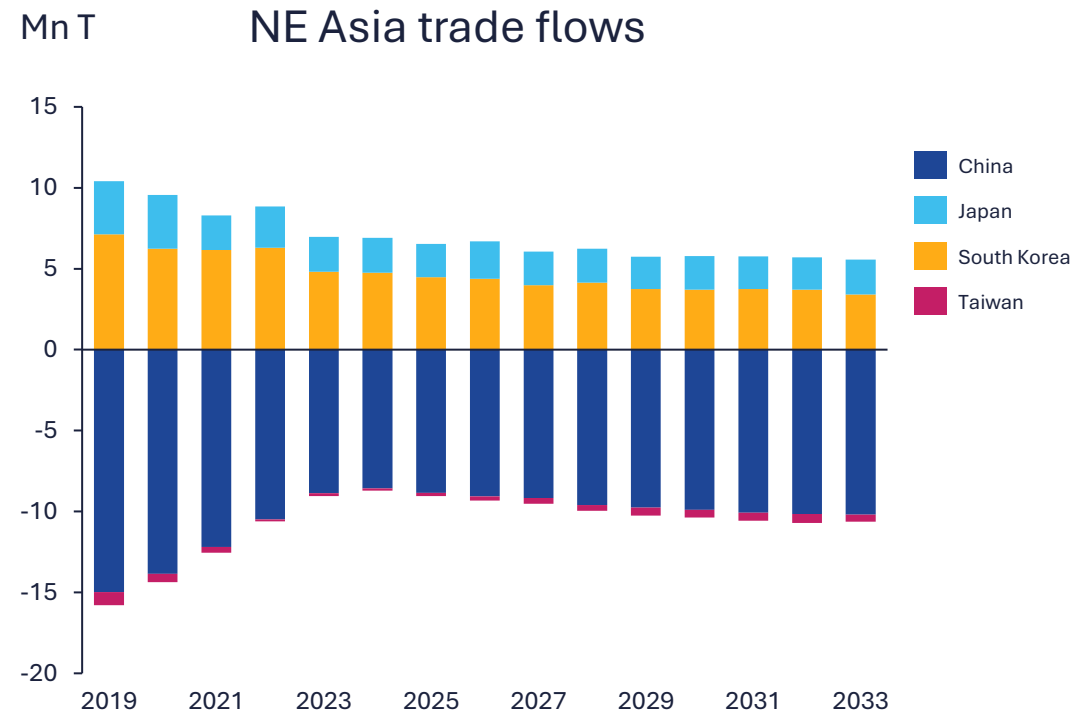
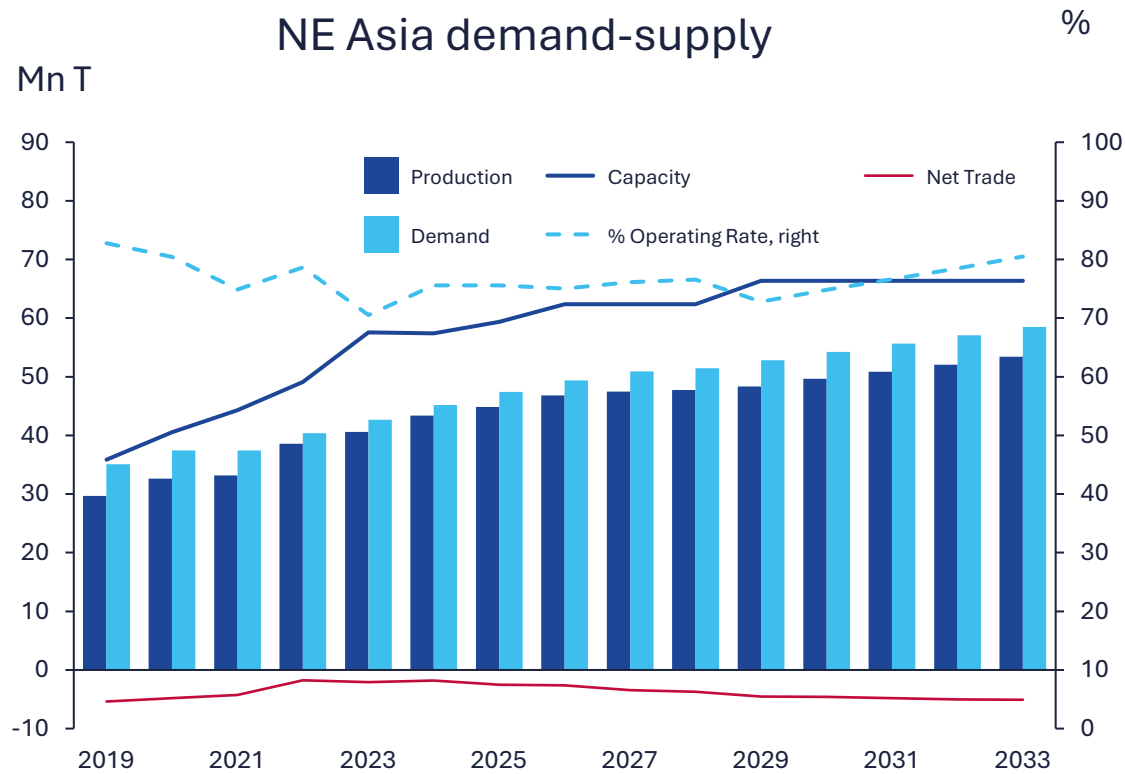
- Paraxylene fob NWE month 1
- Paraxylene fob South Korea marker
- Paraxylene fob US Gulf coast USD/t month 1



- Paraxylene fob South Korea marker
Minus Naphtha Japan c+f
- Paraxylene fob NWE month 1
Minus Naphtha 65 para NWE cif

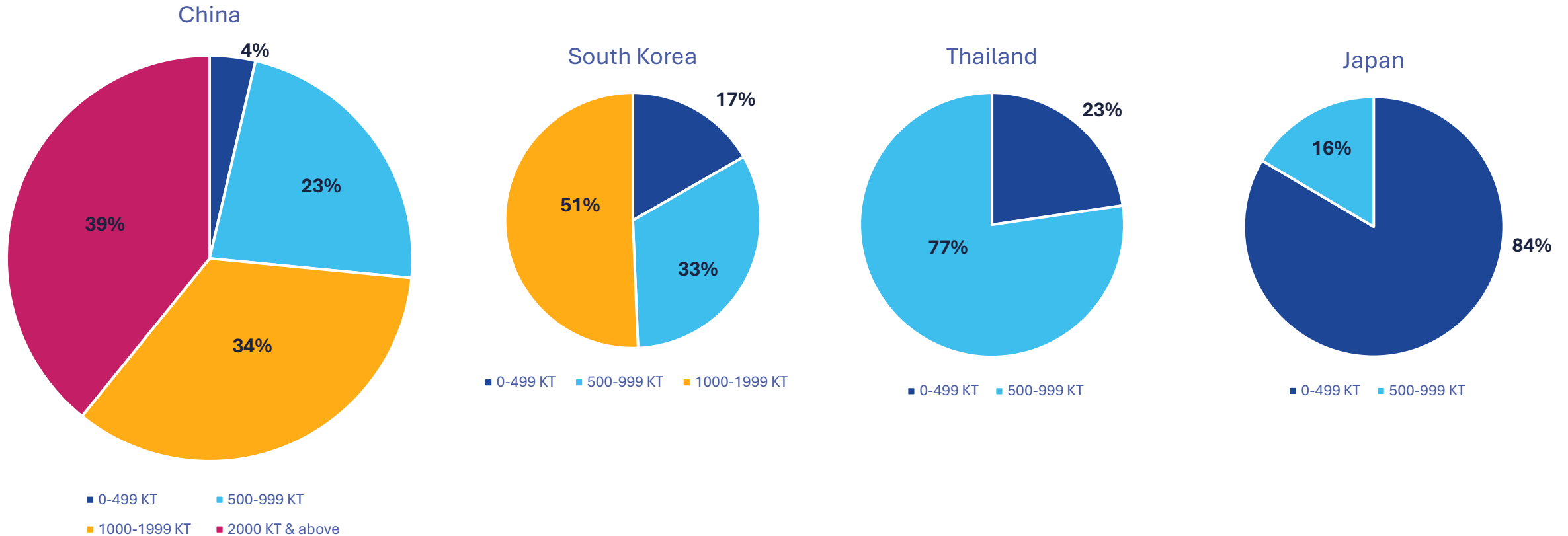
- Large capacity expansions in China impacting Asian spreads as Korean & Japanese surplus faces pressure.
- Higher cost base and diversion of Aromatics feedstock to Gasoline pool, especially in US, opened arbitrage from Asia/ME to US/Europe and supported spreads.
- Spreads relatively healthy in 2023 & H1 2024 as China rebounded post Covid, declined in H2 2024 as economic slowdown, lack of export options to the US & bearish macro impacted sentiments.

PX NE Asia Outlook



- Chinese demand will continue to be the main driver of Asian and global demand growth.
- Chinese deficit likely to increase marginally as fresh capacity addition slows down.
- Asia + Middle East as a whole will remain surplus in PX.
- Export opportunity to US may be hard to come by as weaker gasoline blending market impacts price arbitrage, and tariff increases landed cost.

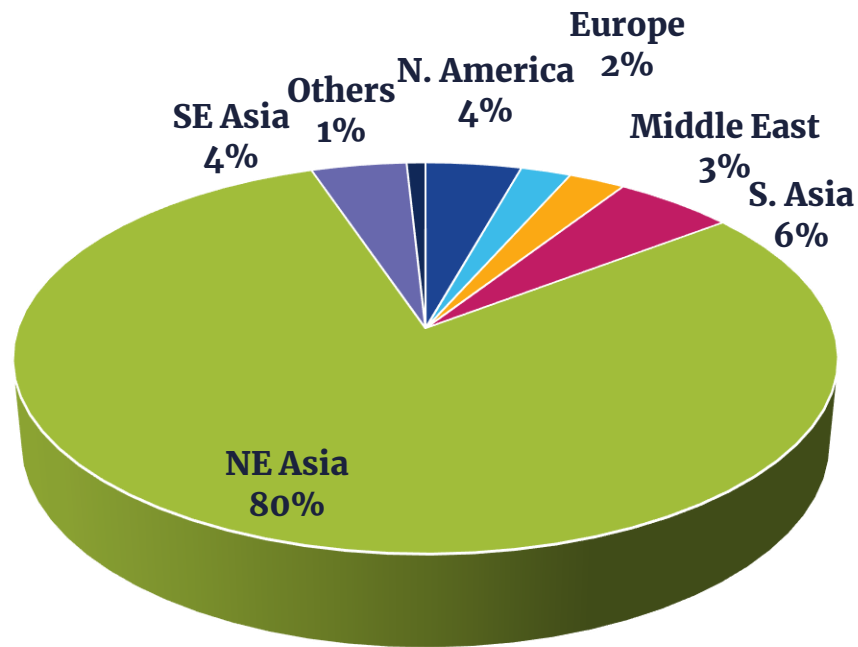
China v/s the Rest – split of PX capacities by size



China dominates not only in size but also in terms of world scale, latest technology plants with the best Opex.

PTA Outlook...Asia (and China) all the way

Global PTA Capacity, 2024
(Around 125 Mn T)



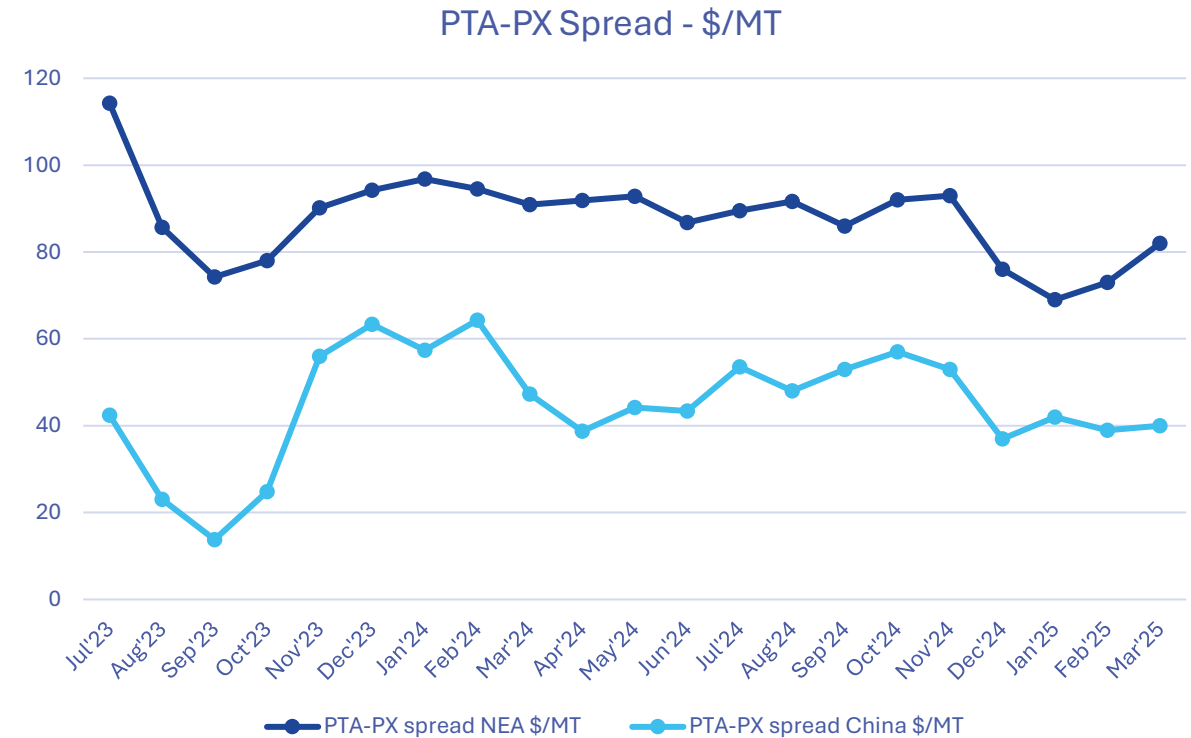
- Global demand growth almost entirely in Asia.
- China alone accounts for nearly 2/3rd of global capacity. Huge overcapacity in China due to large capacity build of last 7-8 years.
- Globally, industry faces overcapacity due to the super cycle of capacity build in China. Global operating rate is around 72 pc.
- More than 10 Mn T capacity shut in the last 7-8 years. More rationalization likely as capacity build in China continues.
- 2 Mn T capacity shut in N. America & Europe in last one year as high PX prices and competitively priced PTA and PET imports from Asia/ China hit margins.
- Upcoming PTA capacities in India & Turkey will further impact export dependent Asian countries.

PX-PTA-Polyester – Integrated model in China

Group	PTA Cap. (Mn T)	Eq. PX (Mn T)	PX Cap. (Mn T)	PX self sufficiency
Yisheng*	21	14	8.8	63%
Hengli*	16.6	11	5	46%
Shenghong*	3.9	2.6	4	153%
Sinopec	4.8	3.2	6	187%
Tongkun*	9	6	0	0%
Xinfengming*	7.1	4.6	0	0%

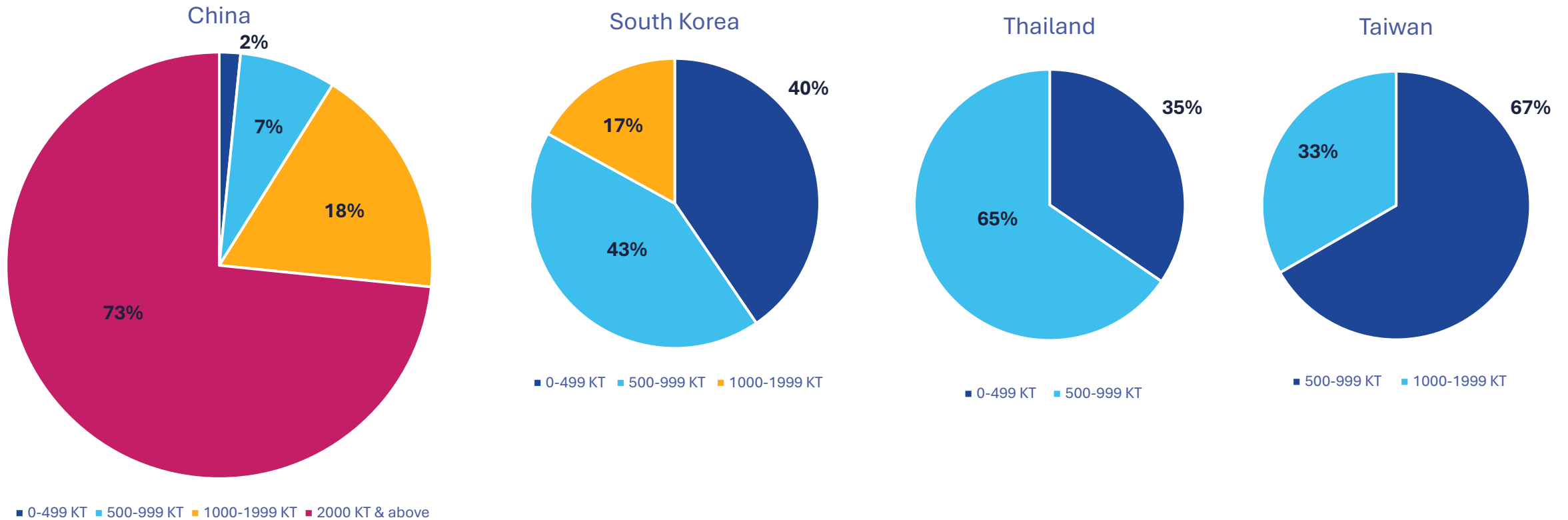
*downstream polyester integration

China	2015	2020	2025
Avg Plant Size (Mn T)	1.0	1.3	1.8



- Top polyester producers in China back-integrated to PTA during the 2010s, and in the last 5-6 years further integrated upstream into Refinery-PX while continuing to add PTA capacity.
- Standalone PTA business model difficult to sustain. PTA industry in China dominated by latest technology 2 to 3 Mn T plants with upstream and/or Polyester integration.
- PTA cost curve has flattened in China, leading to divergence of PTA-PX spreads in China and rest of Asia.

China v/s the Rest – split of PTA capacities by size



The difference between China and the rest is stark, leading to divergence of sustainable PTA-PX spreads.

Possible Impact of Tariffs

Feedstocks

- Watch refinery run rates. Naphtha may remain firm as dual feed crackers in China increase usage.
- Reformate and blending components may be soft as gasoline demand remains subdued.
- Firm Naphtha and weak Reformate is a challenge for Aromatics margin recovery.

Aromatics

- Asian surplus loses option to export to US as arbitrage closes. US demand itself reduces due to lower consumption and lower derivative exports.
- Middle East and European surplus of PX & BZ looks to Asia.
- Chinese downstream demand reduces.

Derivatives

- PET imports into US exempted, may not be impacted.
- Asian BZ derivatives demand may be hit, especially from the white goods and automobiles sectors.
- Trade flows to the US from other Asian countries may gain.

In Summary.....

- The Aromatics market is firmly concentrated East of Suez, with investments in COTC & conventional capacity and driven primarily by growth in derivative PTA/ Polyester. **Asia will continue to drive demand and supply growth along the polyester value chain.**
- Higher feedstock cost due to alternative value in gasoline and shift towards more ethane cracking has impacted Aromatics production in US, turning it from a net exporter to a net importer.
- Higher cost structure, increasing intermediate & derivative imports from Asia is forcing rationalization in Europe especially in the PX-PTA-PET value chain.
- PTA business model in Asia has moved decisively towards PX/ Polyester integration, putting pressure on standalone economics. Upcoming PTA capacities in India & Turkey will further impact export dependent Asian countries.
- Slowing of future capacity additions offers a possibility of improved margins post 2025, **but the current economic turmoil unleashed by tariff war will make recovery harder and slower.**

Thank you

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