

Turning the tide on Global Polyolefin Markets

Matthew Rajendra, Petrochemicals Senior Reporter
APIC 2024 – Seoul, South Korea
31 May 2024

| Argus Media group notices

- The Argus Media group (referred to herein as “Argus”) makes no representations or warranties or other assurance, express or implied, about the accuracy or suitability of any information in this presentation and related materials (such as handouts, other presentation documents and recordings and any other materials or information distributed at or in connection with this presentation).
- The information or opinions contained in this presentation are provided on an “as is” basis without any warranty, condition or other representation as to its accuracy, completeness, or suitability for any particular purpose and shall not confer rights or remedies upon the recipients of this presentation or any other person. Data and information contained in the presentation come from a variety of sources, some of which are third parties outside Argus’ control and some of which may not have been verified.
- All analysis and opinions, data, projections and forecasts provided may be based on assumptions that are not correct or which change, being dependent upon fundamentals and other factors and events subject to change and uncertainty; future results or values could be materially different from any forecast or estimates described in the presentation.
- To the maximum extent permitted by law, Argus expressly disclaims any and all liability for any direct, indirect or consequential loss or damage, claims, costs and expenses, whether arising in negligence or otherwise, in connection with access to, use or application of these materials or suffered by any person as a result of relying on any information included in, or omission from, this presentation and related materials or otherwise in connection therewith.
- The information contained in this presentation and related materials is provided for general information purposes only and should not be construed as legal, tax, accounting or investment advice or the rendering of legal, consulting, or other professional services of any kind. Users of these materials should not in any manner rely upon or construe the information or resource materials in these materials as legal, or other professional advice and should not act or fail to act based upon the information in these materials.
- Copyright notice: Copyright © 2024 Argus Media group. All rights reserved. All intellectual property rights in this presentation and the information herein are the exclusive property of Argus and and/or its licensors and may only be used under licence from Argus. Without limiting the foregoing, you will not copy or reproduce any part of its contents (including, but not limited to, single prices or any other individual items of data) in any form or for any purpose whatsoever without the prior written consent of Argus.
- Trademark notice: ARGUS, the ARGUS logo, Argus publication titles, the tagline “illuminating the markets®”, and Argus index names are trademarks of Argus Media Limited. For additional information, including details of our other trademarks, visit argusmedia.com/trademarks.

A view of Argus

Headquartered in the UK, Argus has over 1,300 staff working in 29 offices in the world's principal commodity trading and production centres.

Argus publishes more than 42,000 daily and weekly spot and forward price assessments, along with commentary, news and analysis for global commodities and energy markets.

Coverage includes markets for:

- Oil, natural gas, power, hydrogen, coal, biomass, asphalt, base oils, emissions and carbon
- Biofuels
- Fertilizers
- Agriculture
- Chemicals, including petrochemicals and oleochemicals
- Metals, ferrous, non-ferrous, battery materials, and scrap

Services:

- Market reporting, news, and analysis
- Consulting and forecasting
- Conferences

Argus prices are used as benchmarks worldwide, including for:

- US crude oil
- European gasoline and biofuels
- Asia-Pacific LPG
- Coal
- European steel
- US and European environmental markets



| Agenda

- Global overview and outlook
- China's push for self sufficiency
- The road to regionalization in Southeast Asia
- India: the silver lining
- Ripple effects of Middle East tensions
- Concluding thoughts

Global overview and outlook

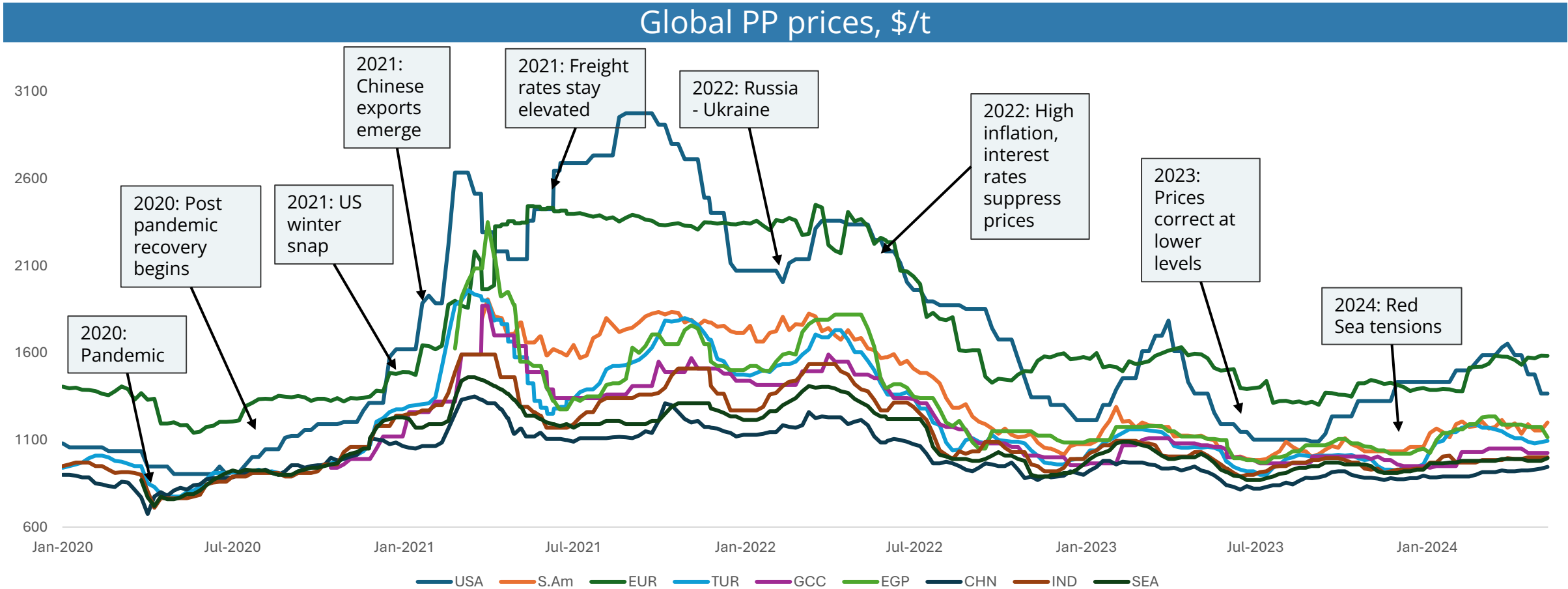


Global LLDPE prices retreat following post-pandemic highs

Global LLDPE prices, \$/t

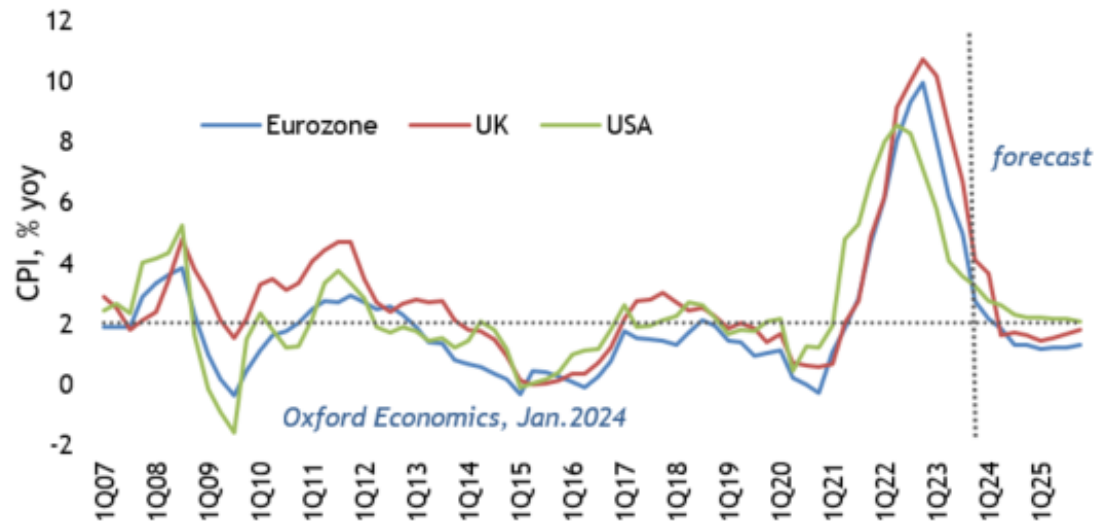


Global PP prices ease post-pandemic as Chinese exports emerge

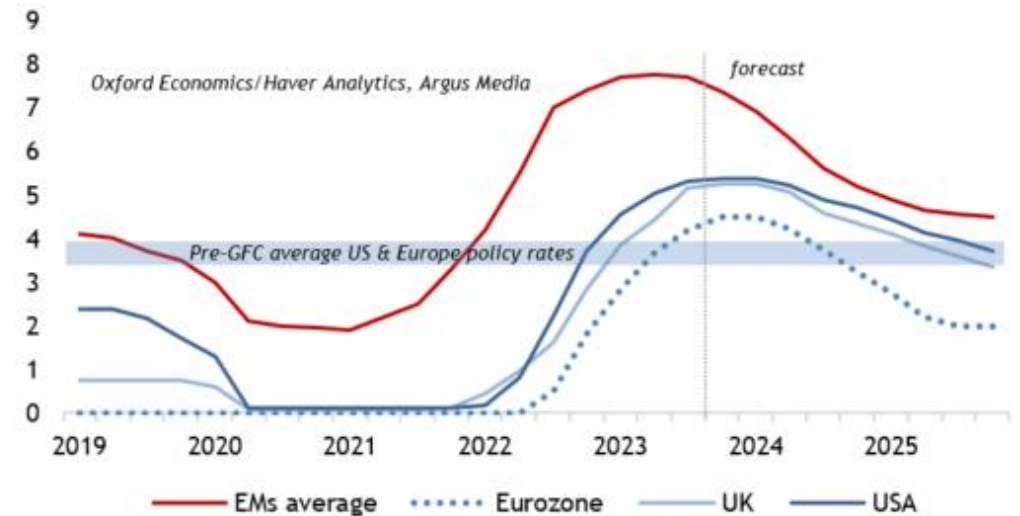


Inflation, high interest rates & strong dollar may persist

Western Economies CPI Forecast, %

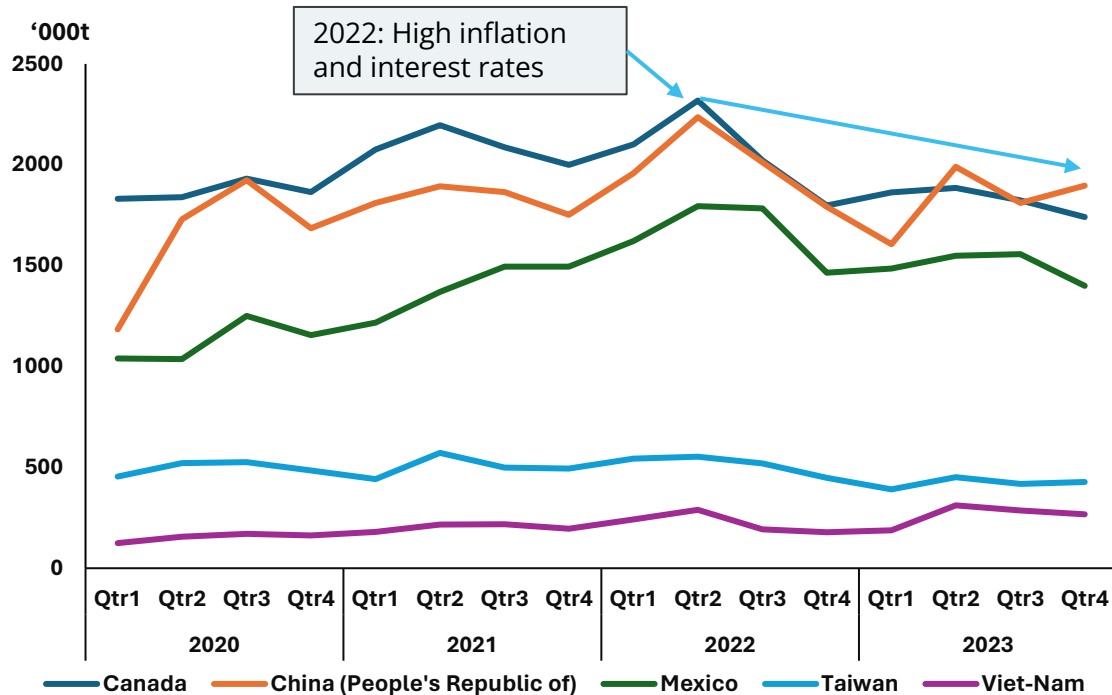


Global Central Bank policy rates, %

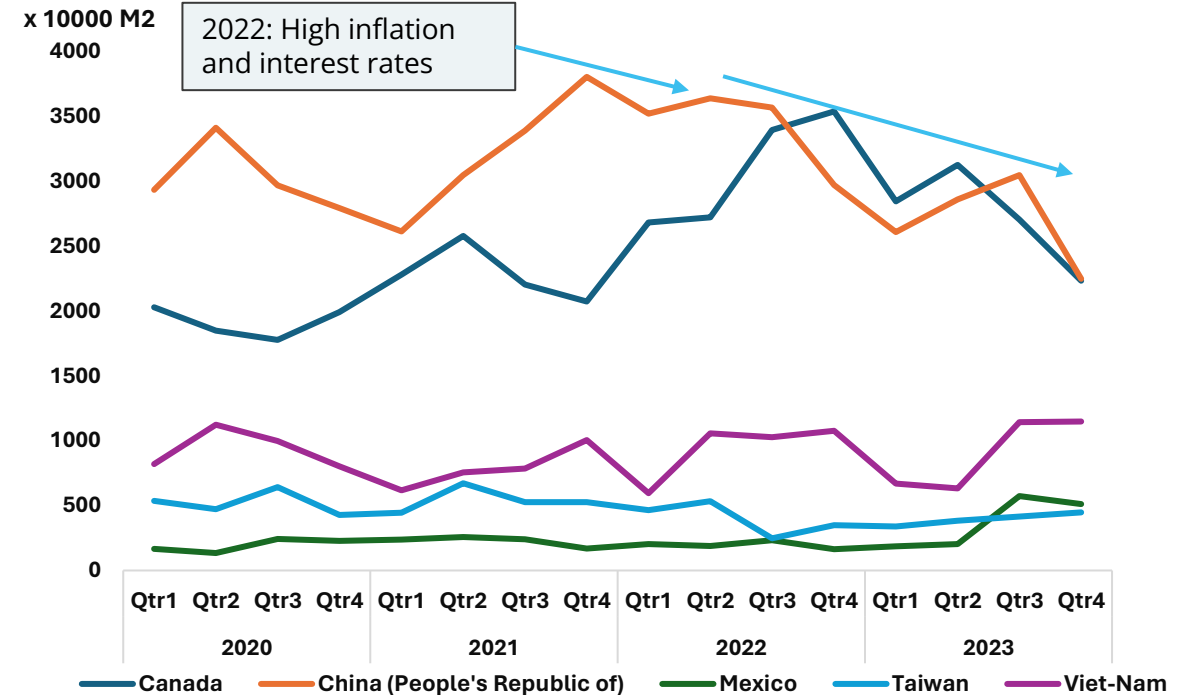


US plastic finished goods imports fall on inflation, high interest rates

Tableware and kitchenware imports, kt



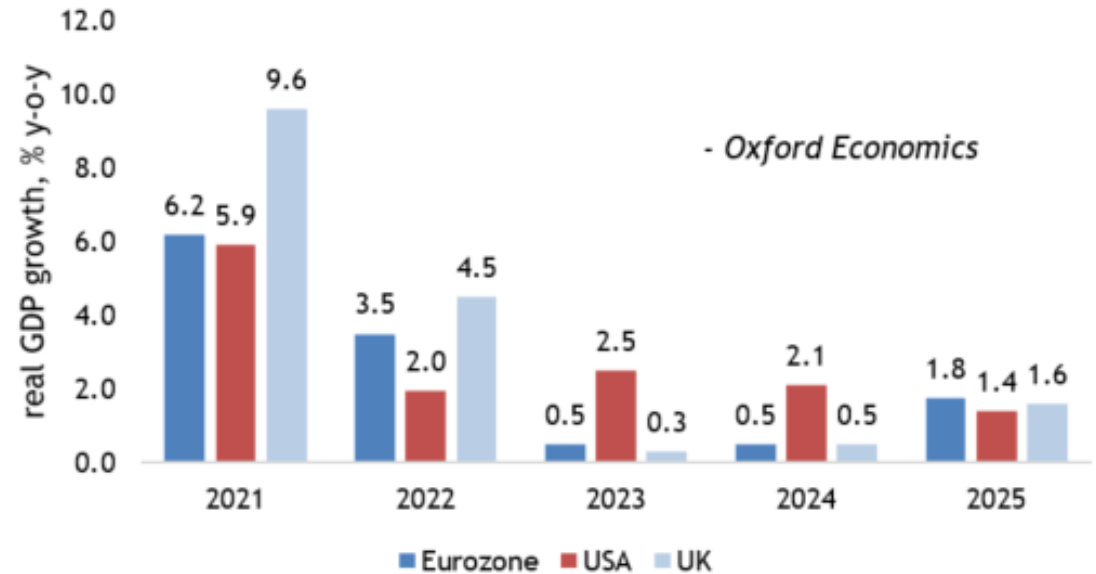
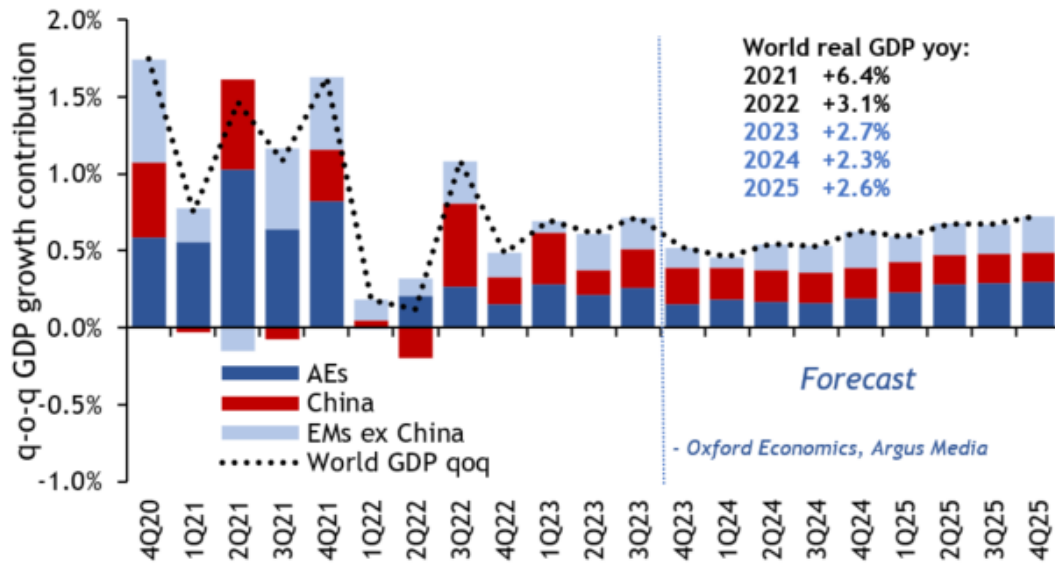
Film, sheet imports, m²



Macro momentum fades into 2024

Anaemic outlook for global economy in 2024

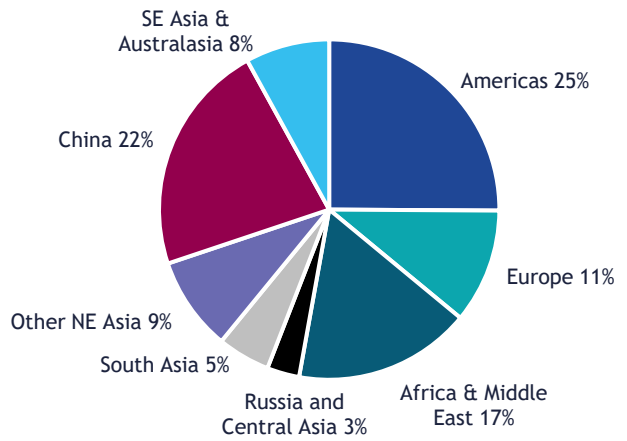
Advanced Economy slowdown to run into 2024



China dominates PE & PP capacity additions

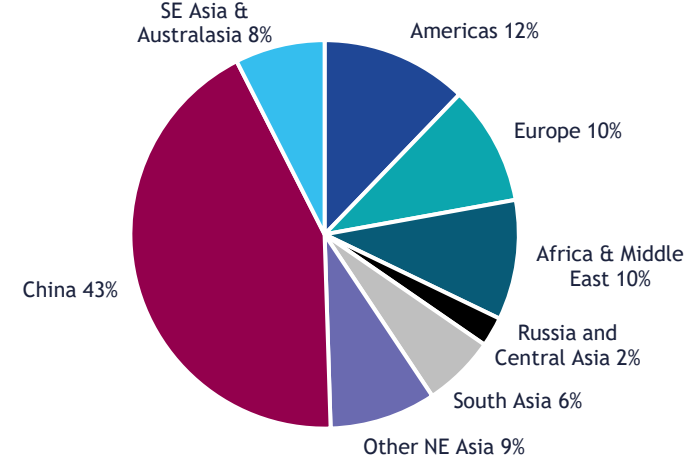
- China will add more PE capacity and surpass the Americas in 2027
- Latest wave of investment in north America to target Asia. North America added 4.8mn PE capacity since 2020 – 47pc LLDPE
- American and Middle Eastern producers leverage on cheaper feedstocks, Chinese producers gain government support

2024 Global PE capacity share

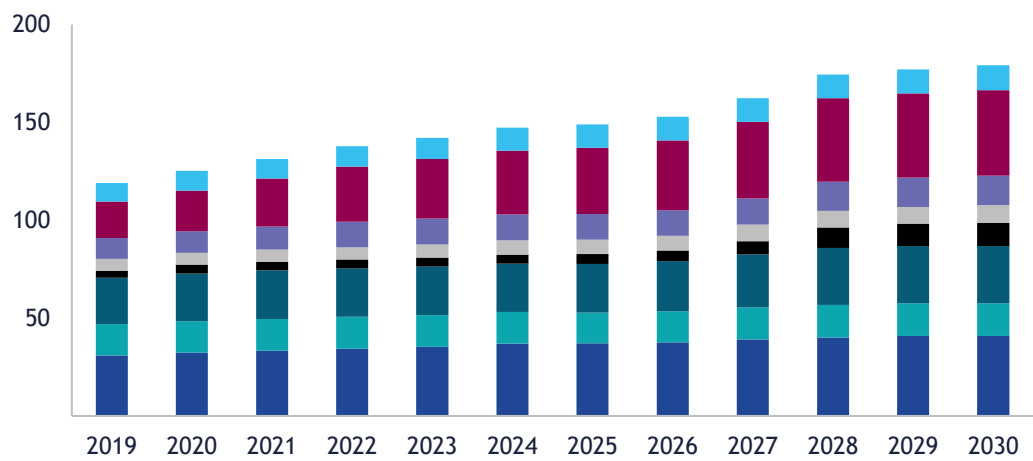


- China PP capacity surpasses its consumption in 2020
- Overcapacity will limit margin recovery, operating rates
- Producers will need to manage timing of new capacity additions as inflation and other macroeconomic conditions likely to slow demand growth

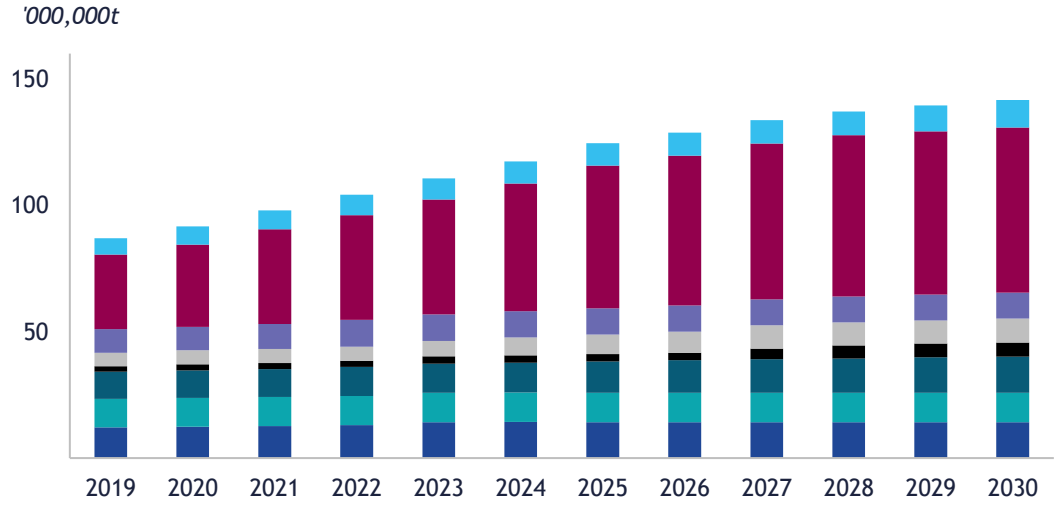
2024 Global PP capacity share



Global PE capacity, '000,000t



Global PP capacity, '000,000t



Prices taken from Argus Editorial, Argus Consulting

China's push for self sufficiency

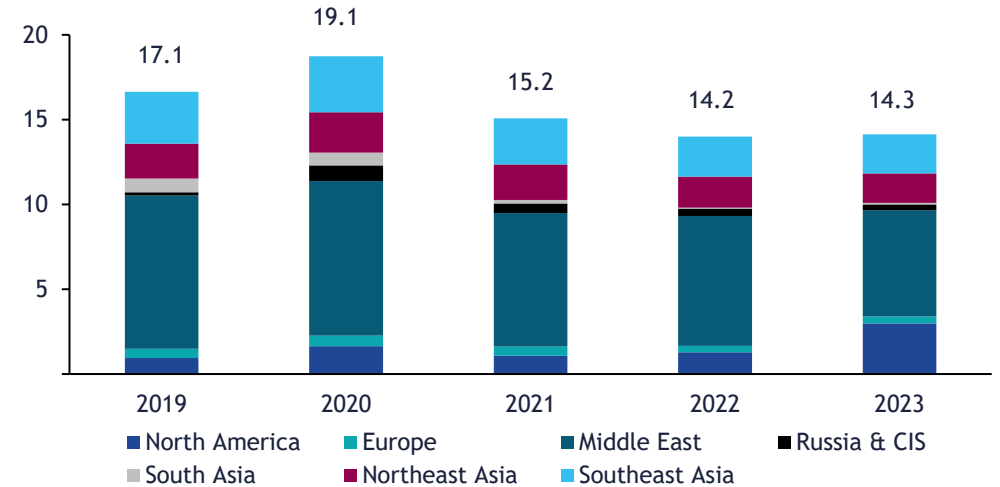


China PE imports gradually decline

China PE import share, %



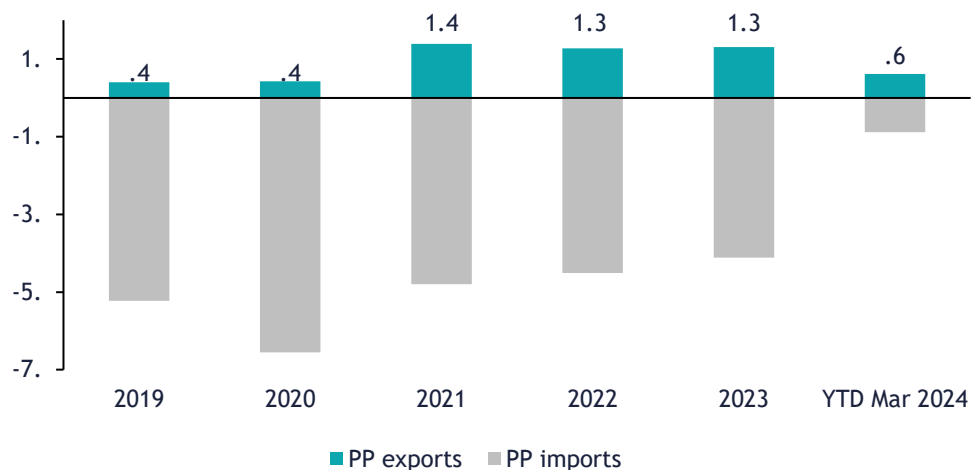
China PE imports, '000,000t



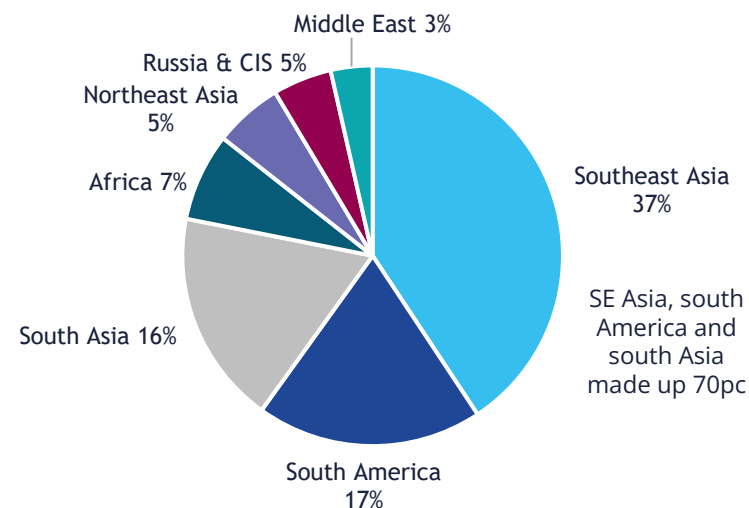
- North America import share up by 12pc pt, absolute volume more than doubled
- Middle East export share down by 10pc pt in 2023
- China PE imports stood at 34pc of total consumption in 2023, down from 50pc in 2019

Chinese PP imports fall with surplus from new capacities

China PP exports vs imports, 000,000t



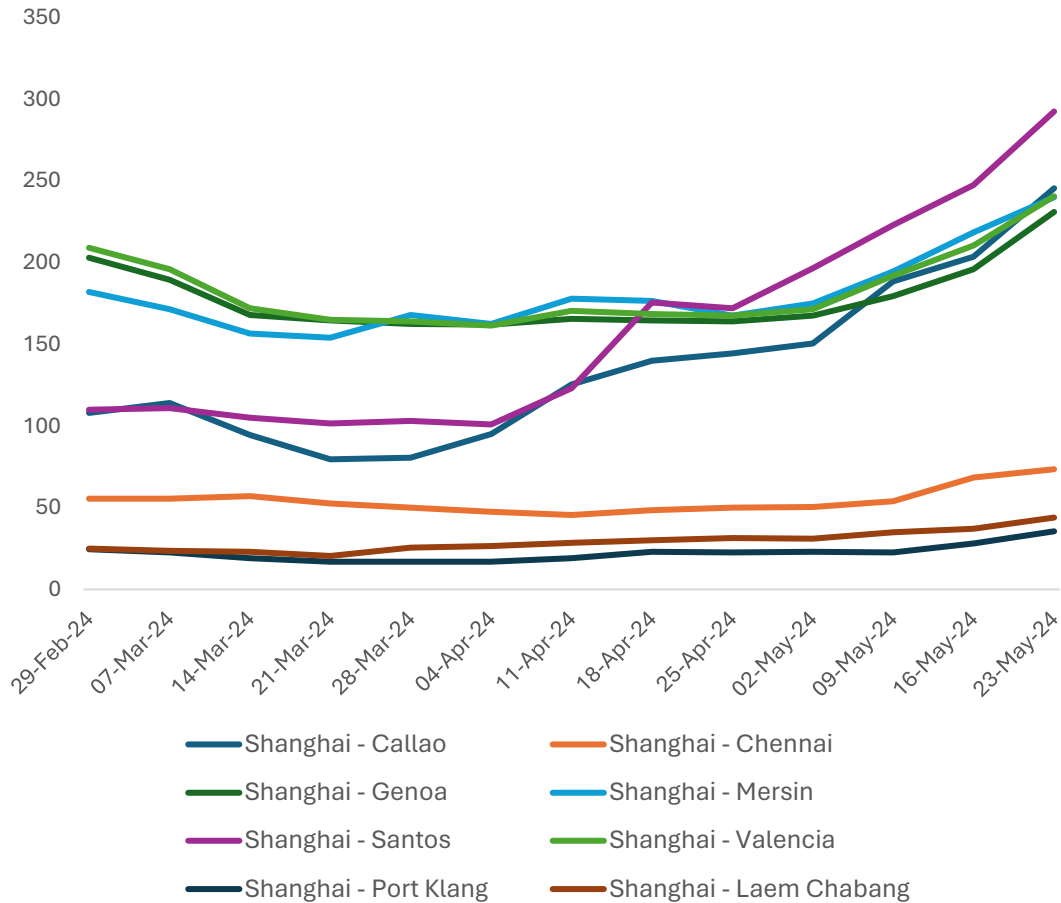
China PP export destinations 2023



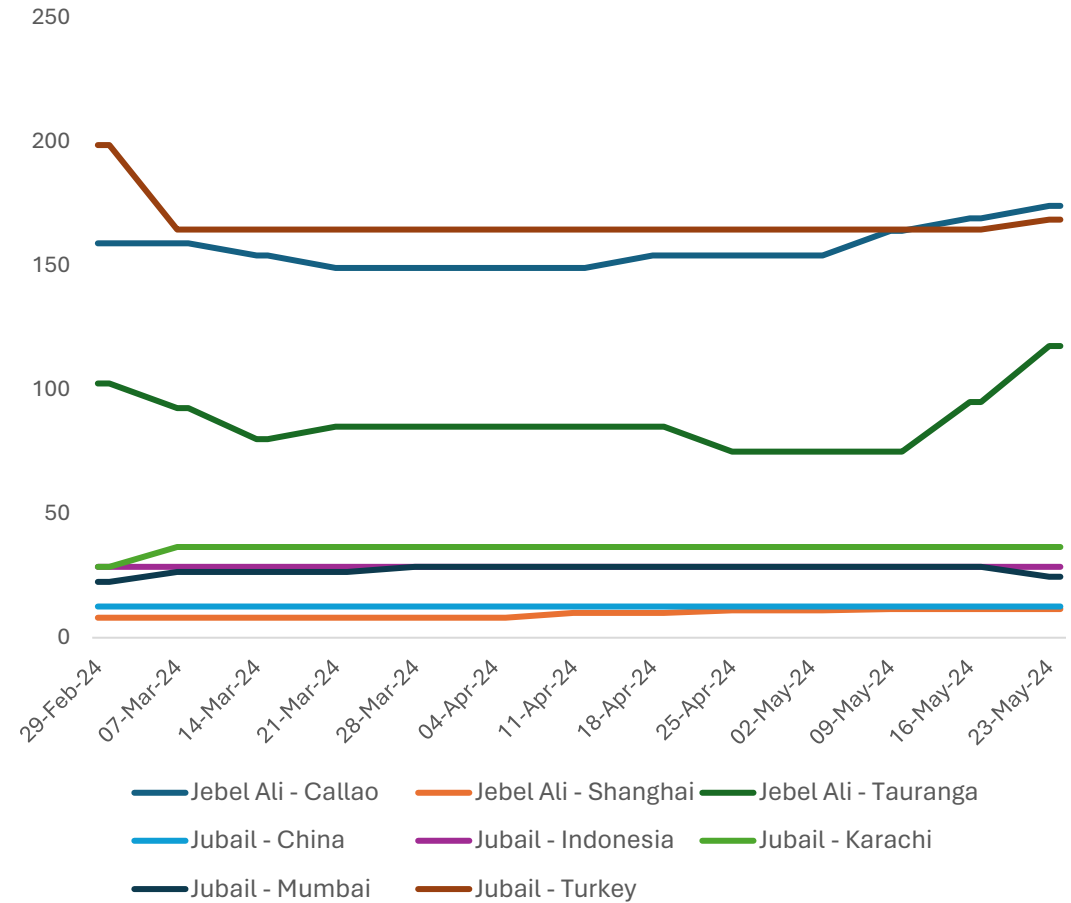
- Commodity surplus leads to lower imports, higher exports.
- China PP exports hit 315,000t in March this year – low freight rates, preferential tariffs increase competitiveness.
- Chinese export prices set floor prices in other markets – Argus China fob PP prices serve as reference points.

Short-term exports hindered by logistical issues

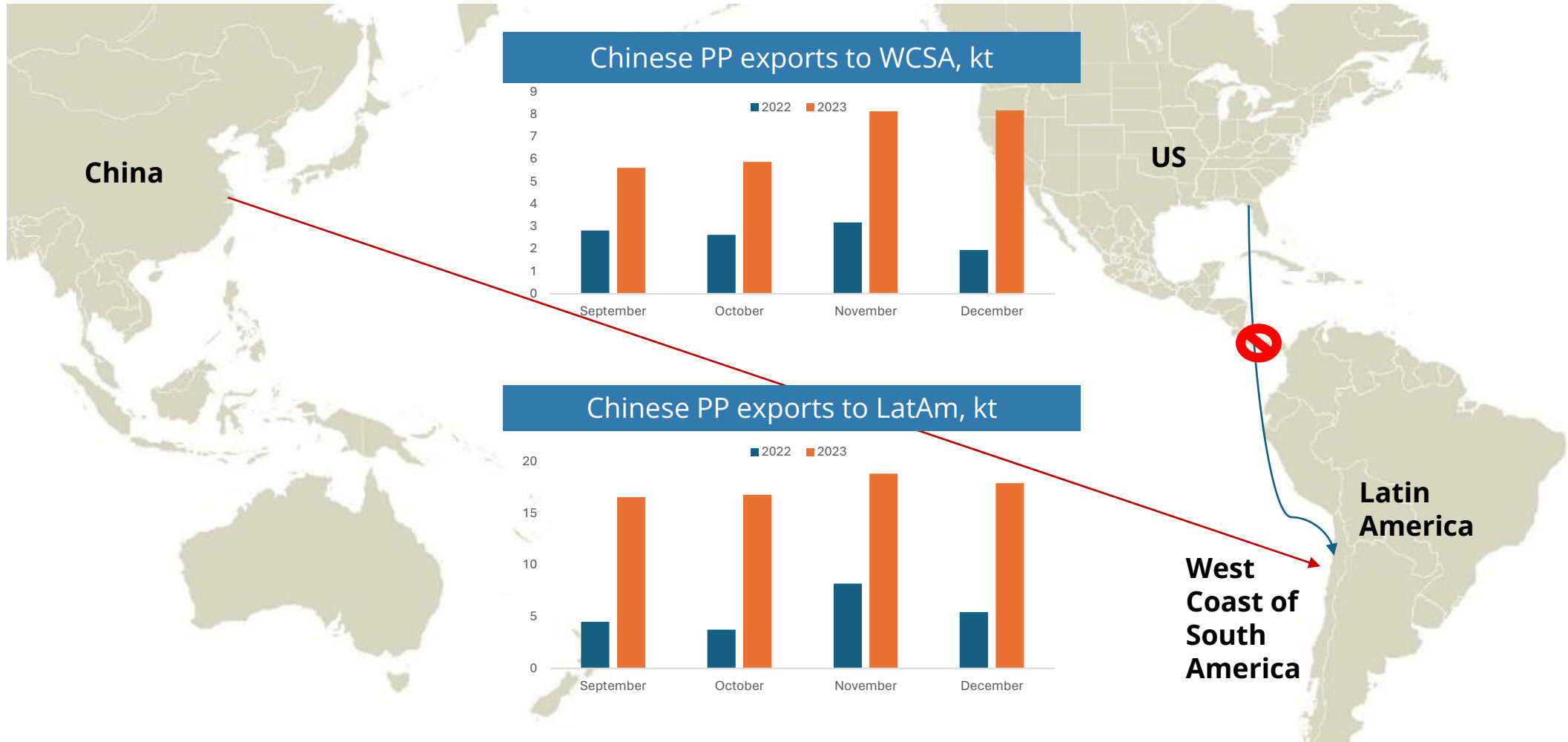
Key China export freight rates, \$/t



Key Middle East export freight rates, \$/t



Panama Canal drought boosts Chinese polyolefin exports to Latin America



China loses freight cost advantage to Mideast Gulf in exports to WCSA

Mideast Gulf freight premiums over NEA to Latam, \$/t



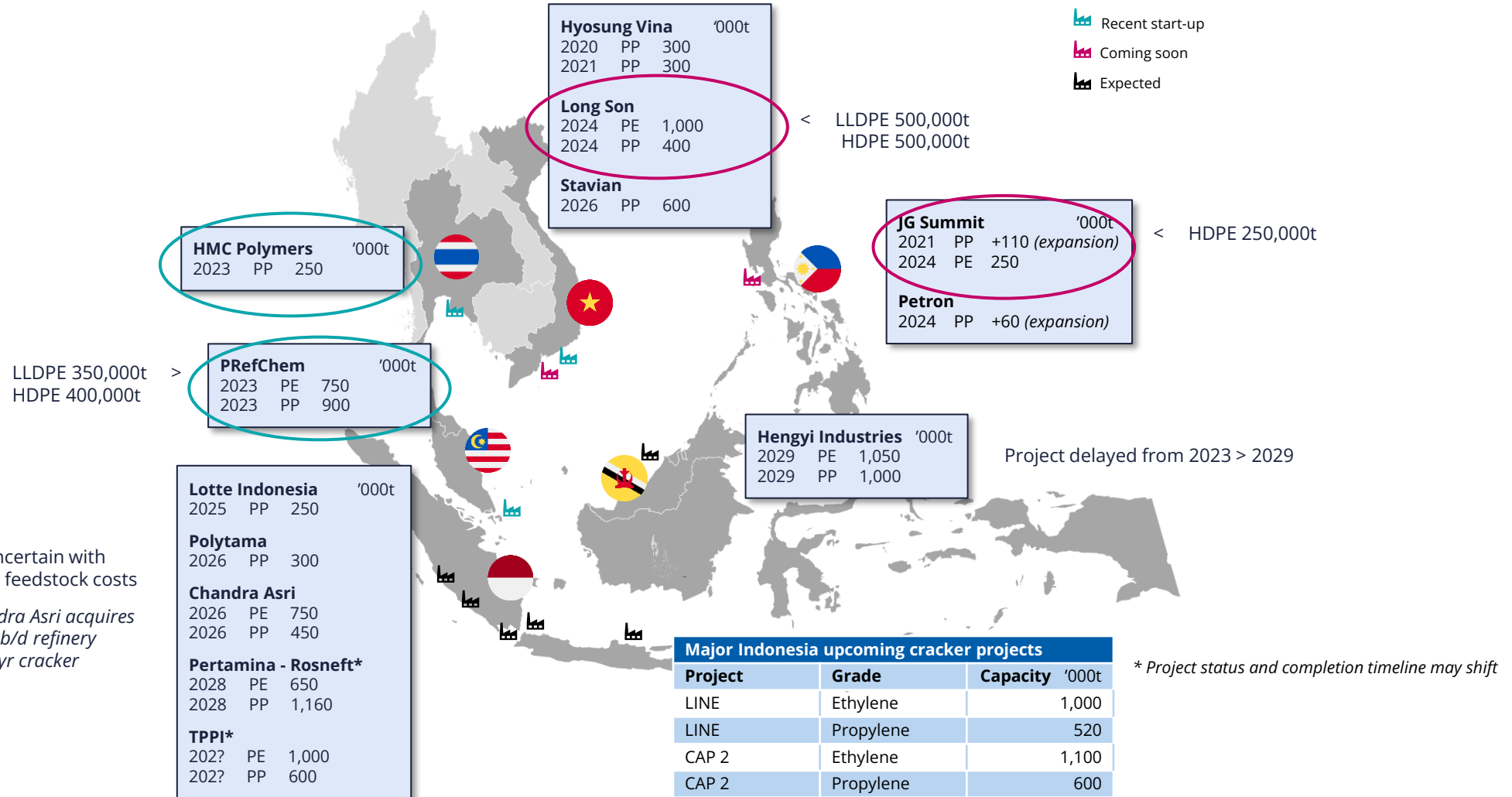
Chinese PP raffia netforward comparison to cfr WCSA, \$/t



The road to regionalisation in Southeast Asia

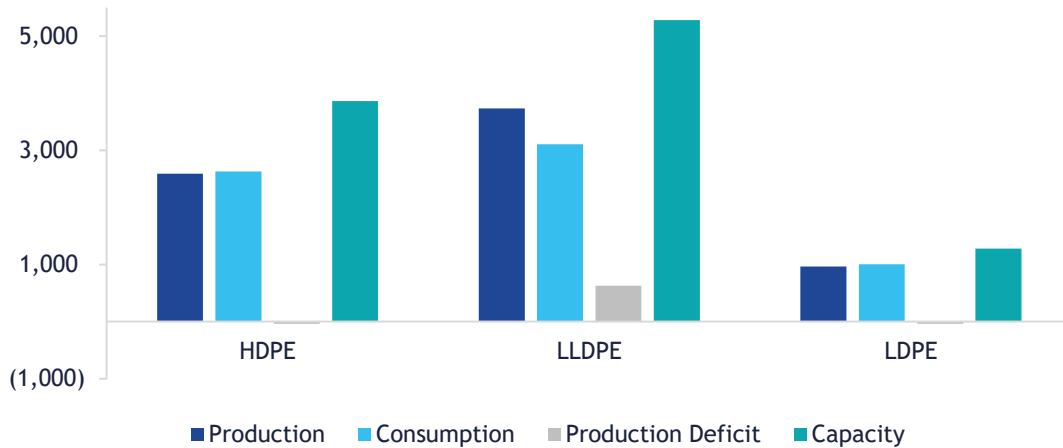


ASEAN trades regionalize with rapid expansions

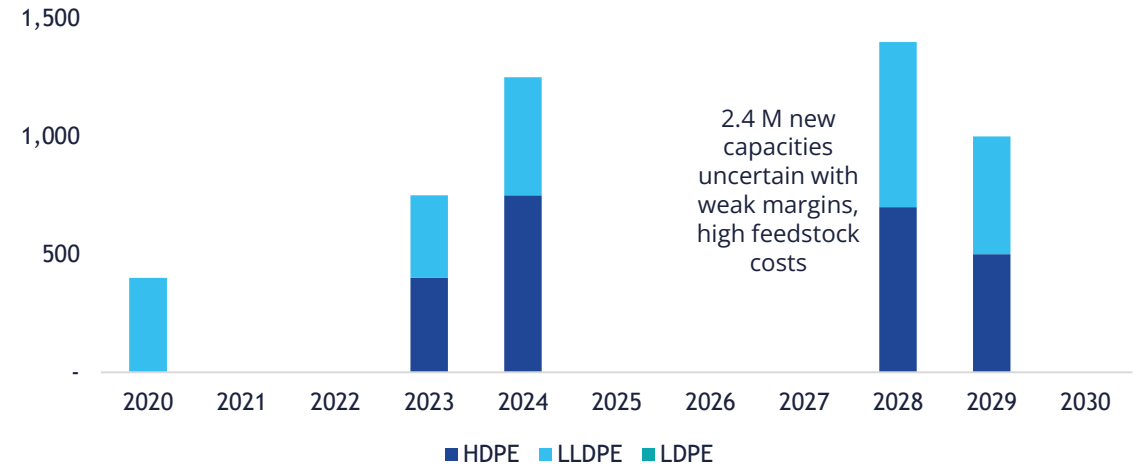


SEA PE capacity to rise by 2mn t in 2023-2024

SE Asia PE production vs consumption in 2023, '000t



SE Asia PE capacity additions, '000t

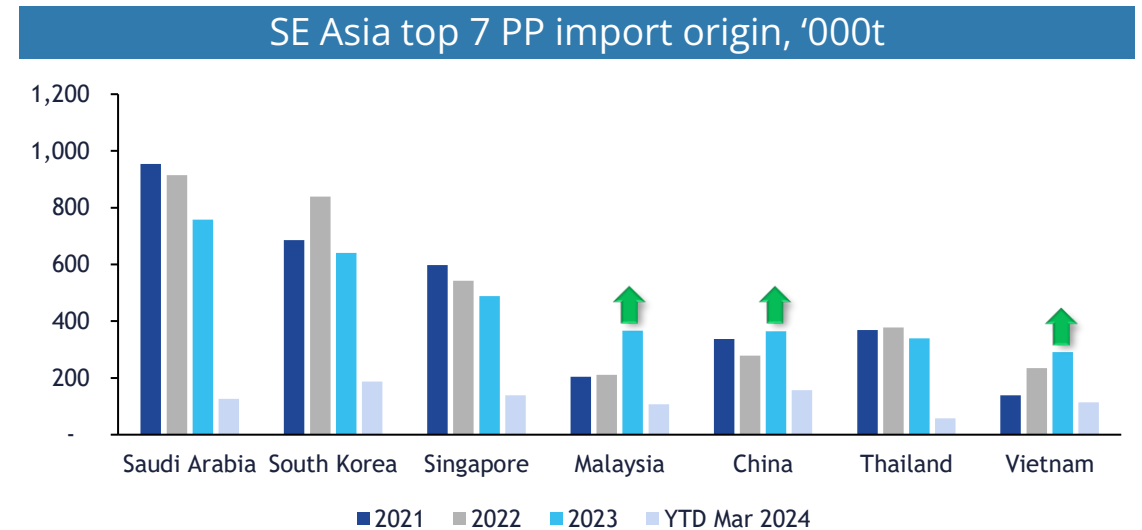
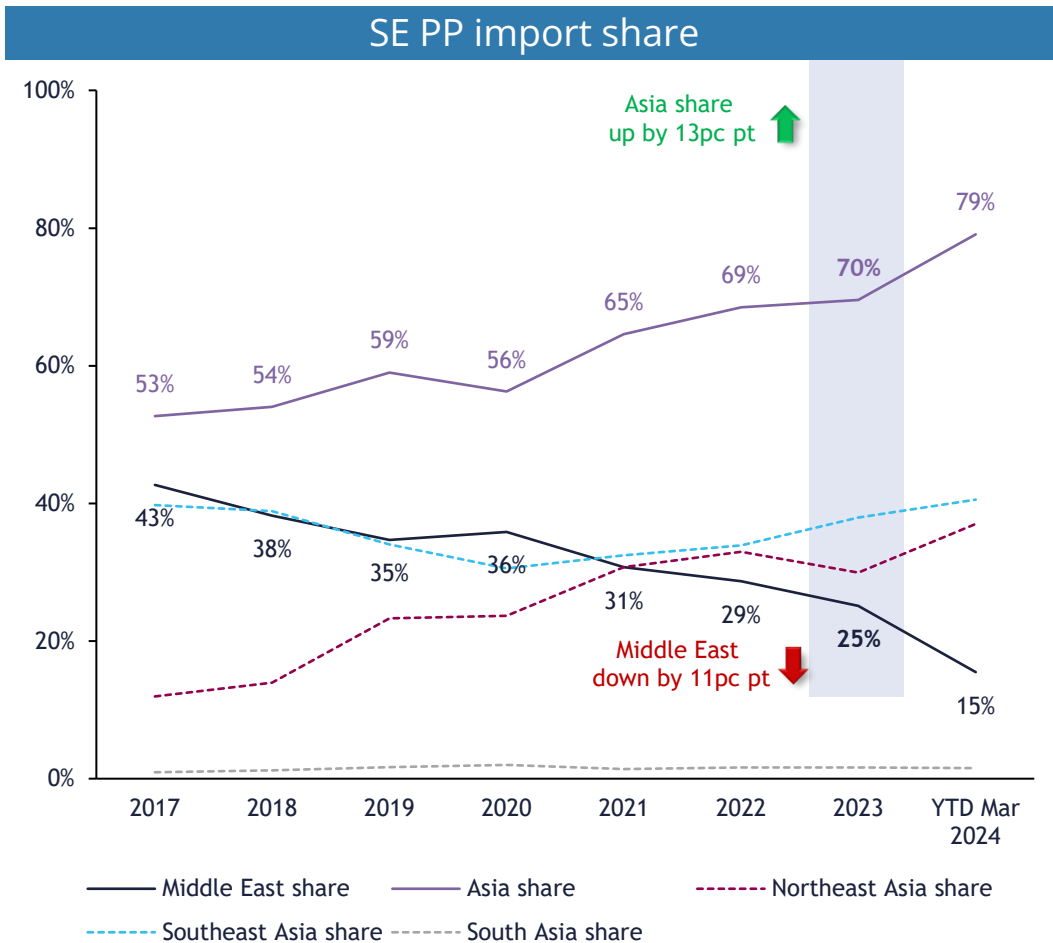


- SE Asia saw a surplus of more than 500kt of PE in 2023 – mainly LLDPE, as supply grew, and demand weakened.
- Average operating rates fell to 70pc in 2023 because of weak margins.

- SE Asia will see 2mn t/yr of PE capacity in 2023–2024.
- If new plants run at 70pc, PE supply will remain long until at least 2027 (assuming demand grows by 6pc/yr).
- 2.4mn t/yr of new PE capacity expected in 2028–2029 are uncertain, imports needed as demand rises.

Southeast Asia PP trades regionalize

Chinese fob prices influence southeast Asian prices



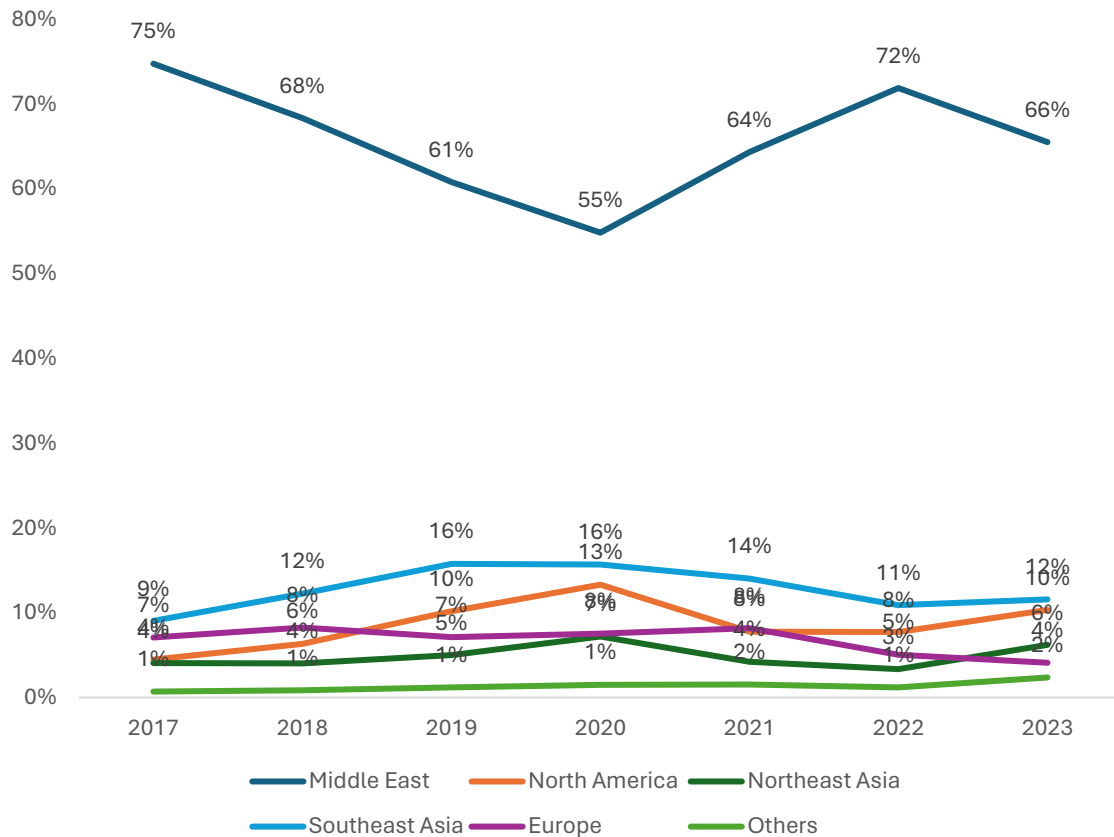
- Asia import share up by 13pc pt in 2023 vs 2020 – higher SE Asia and NE Asia imports.
- Middle East import share down by 11pc pt in 2023 vs 2020.
- Chinese PP exports to SE Asia catches up with regional producers.
- Higher Asian imports implies that SE Asia and Chinese export prices will lead the market – Argus SE Asia duty-free prices, China fob PP prices serve as reference points.

India: the silver lining

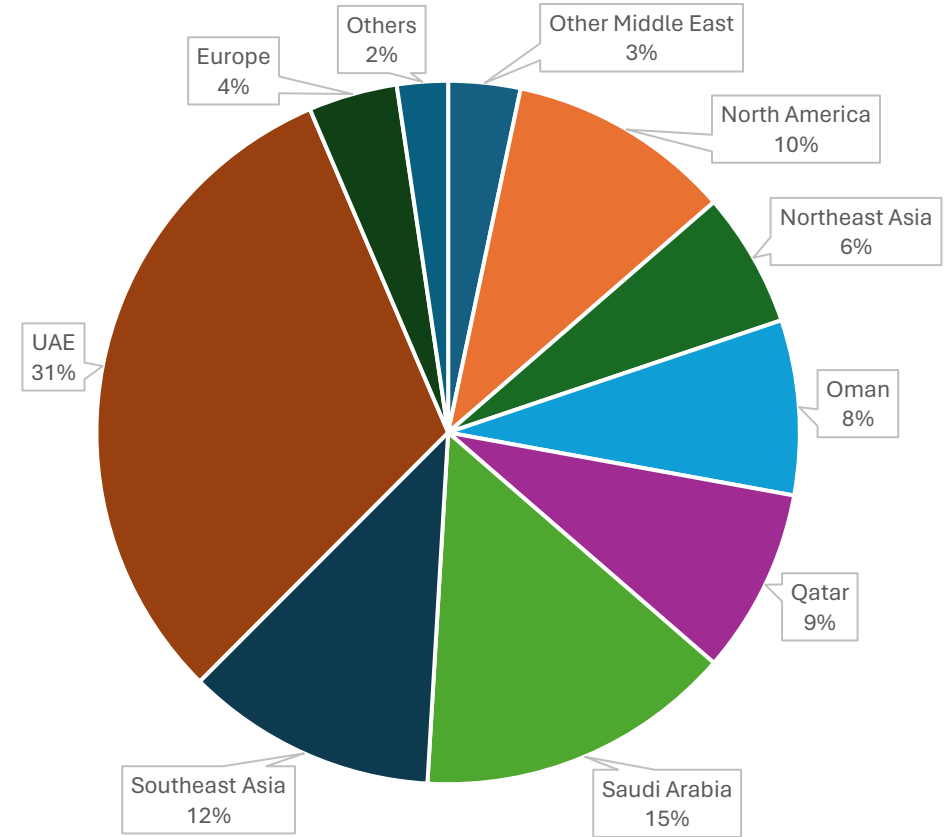


Middle East dominates Indian PE, PP imports

India PE import share by origin

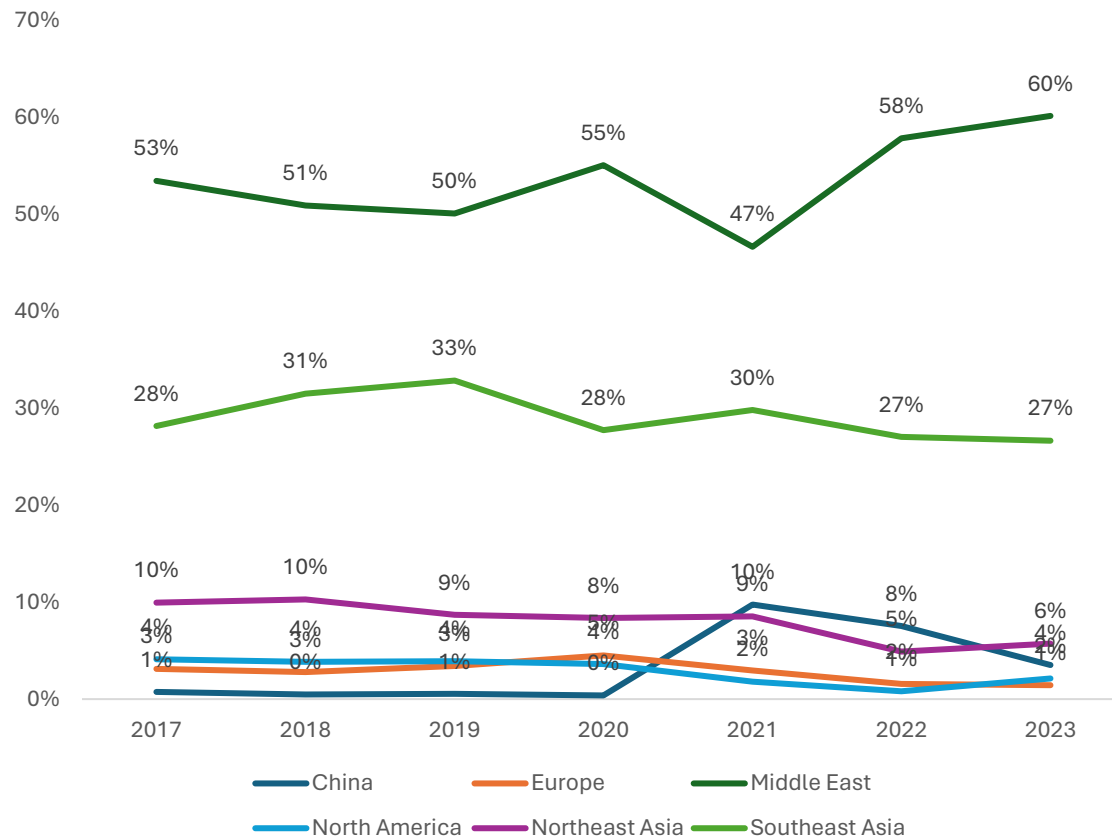


India 2023 PE import share by origin

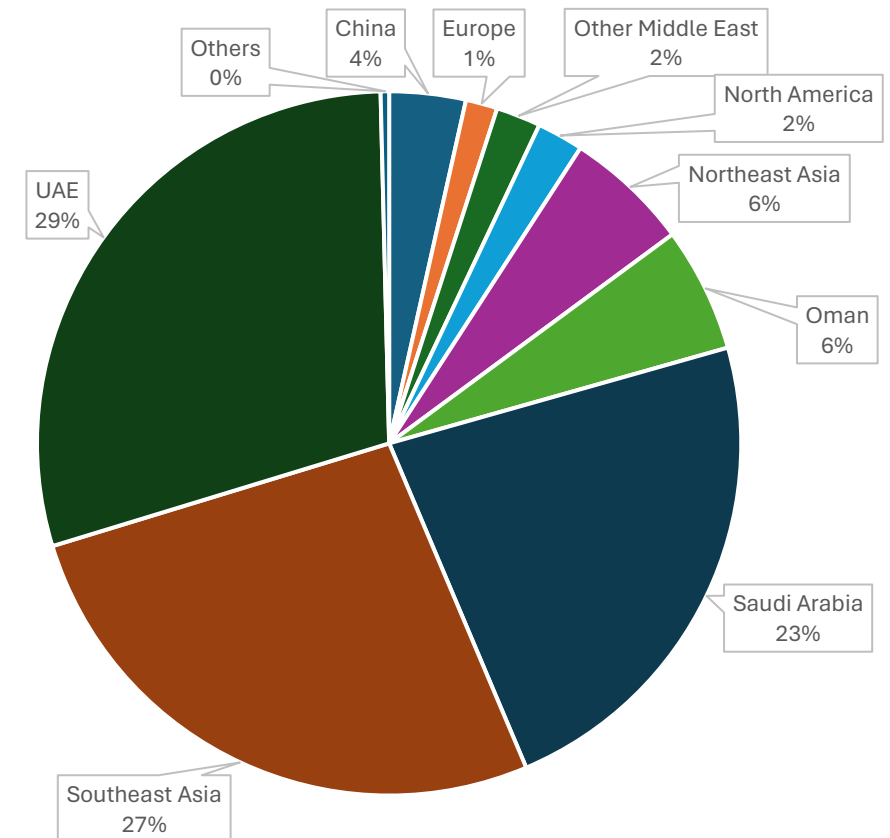


Chinese PP fails to dazzle Indian buyers; Mideast and SEA cargoes stay on top

India PP import share by origin

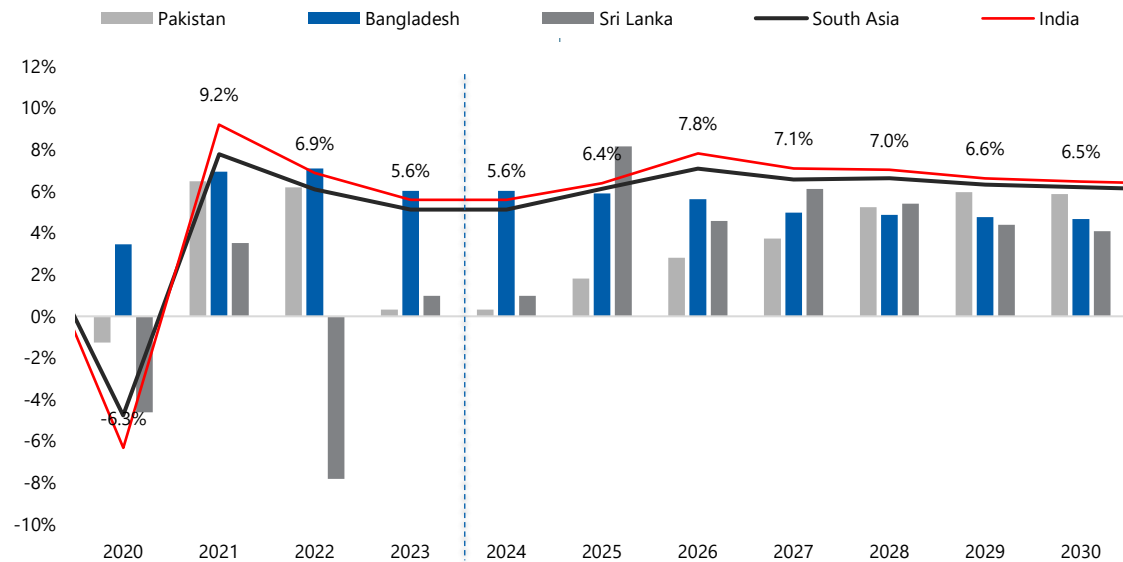


India 2023 PP import share



Robust GDP and population growth keep most bullish on India

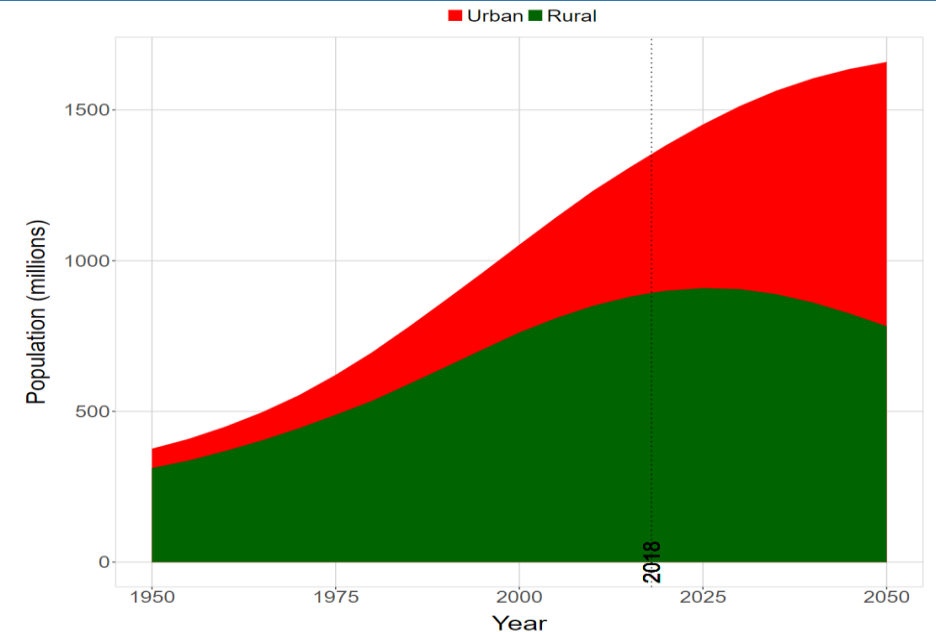
South Asia GDP forecast, %



— Argus Consulting Services, Oxford Economics

- India's GDP growth shows a strong strength and sustainable growth during next 5 years.
- GDP expected to stay above 5pc in 2024 and rose to as high as 7.8pc in 2026.

Indian urban and rural population, mn



© 2018 United Nations, DESA, Population Division. Licensed under Creative Commons license CC BY 3.0 IGO.

Note: Urban and rural population in the current country.

- By 2030, more than 40pc of the population is expected to live in urban India, up from 33pc currently.
- United Nations projects India's population to be 1.64 bn by 2047. 0.82 Bn (around 50pc) will be in urban areas.

New capacities, BIS to push Made in India



Bureau of Indian Standards
The National Standards Body of India

New PE and PP capacities in India

Producer	Capacity	Start-up
HMEL	1.2mn t/yr PE 500,000 t/yr PP	PP in 2022 PE in 2023
Nayara Energy	450,000 t/yr PP	Q4 2024
HPCL	1.1mn t/yr PE 1mn t/yr PP	Q4 2024
IOC	650,000 t/yr PP	2025
GAIL	500,000 t/yr PP	2025
Chennai Petroleum	475,000 t/yr PP	2026

BIS mainly affects HDPE film and BM markets

India set BIS on PE on 5 January except for LDPE extrusion coating, film, blown and cast or pharma, linear LDPE butene, hexene and octene grades, metallocene PE grades, base resins of power cable, jacketing and other applications, as well as high-density PE (HDPE) PE80 and PE100 black and pigmented.

BIS ordered on PP, PVC from 25 Aug

India will also be implementing BIS on PP and PVC. Concerns over on whether imports from China and the US will continue.

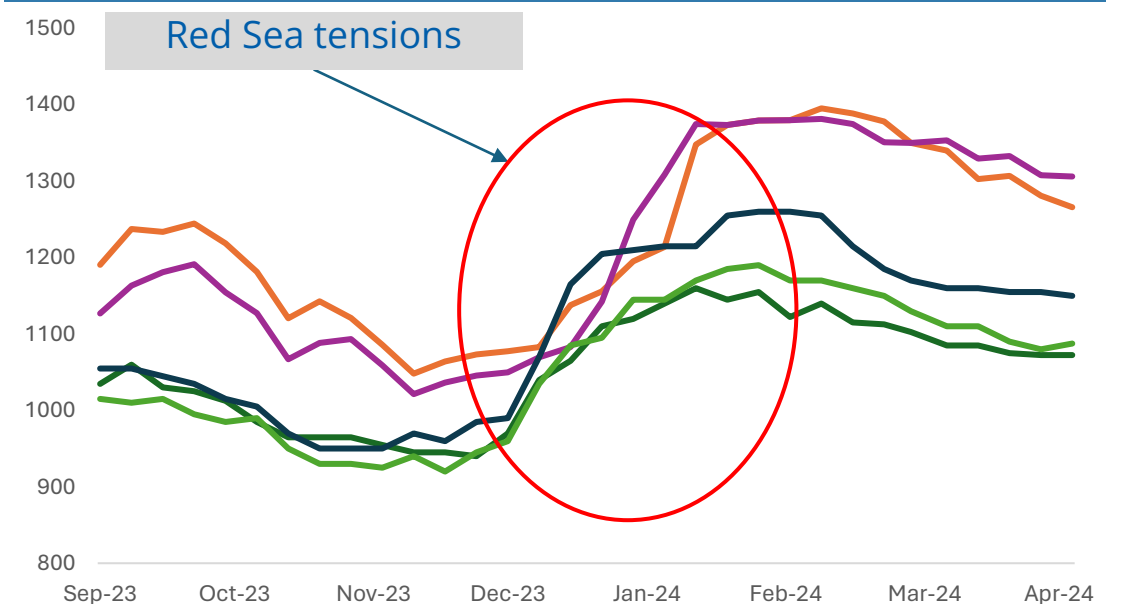
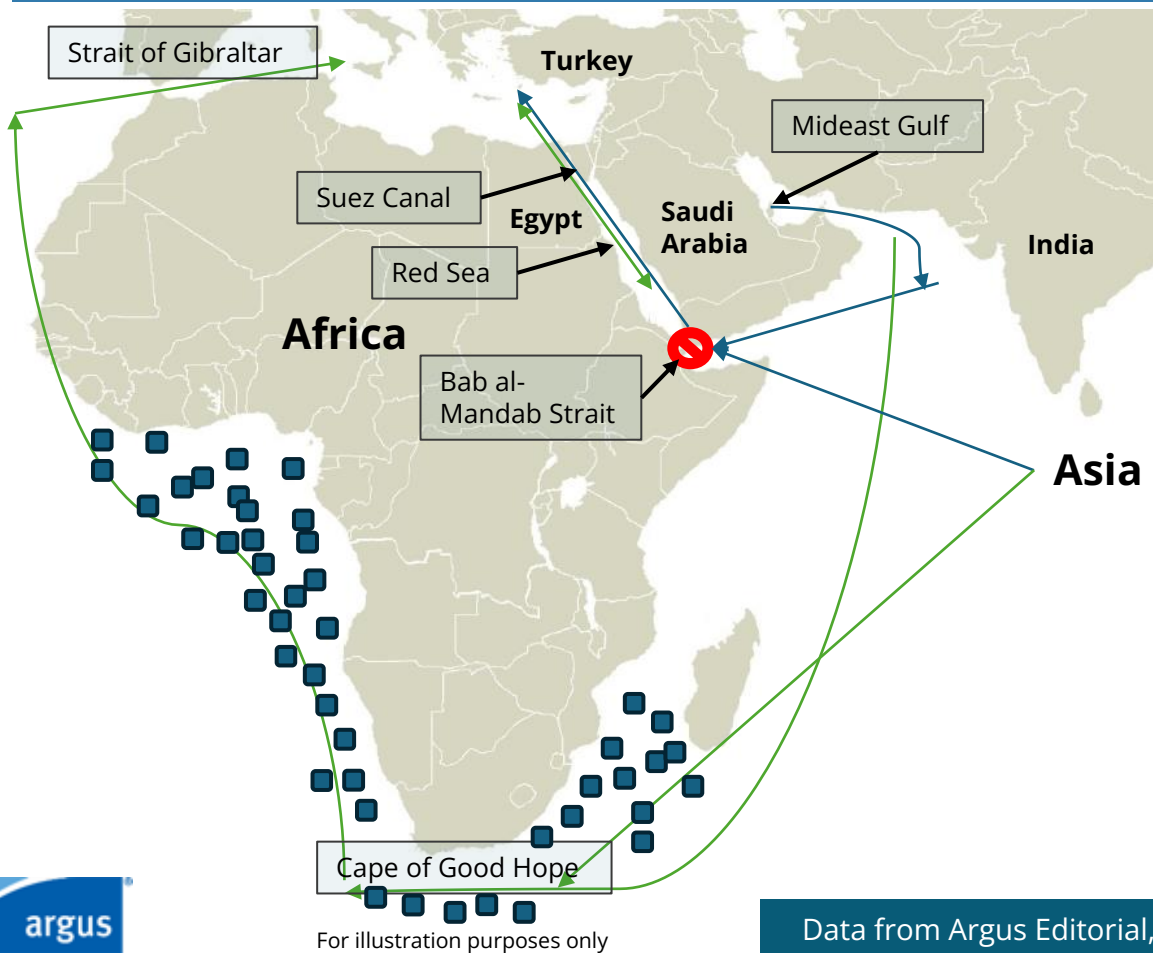
Ripple effects of Middle East tensions



EU, Turkish prices begin correcting but stay higher than pre-Red Sea tensions

Congestions around Cape of Good Hope delay exports to Europe

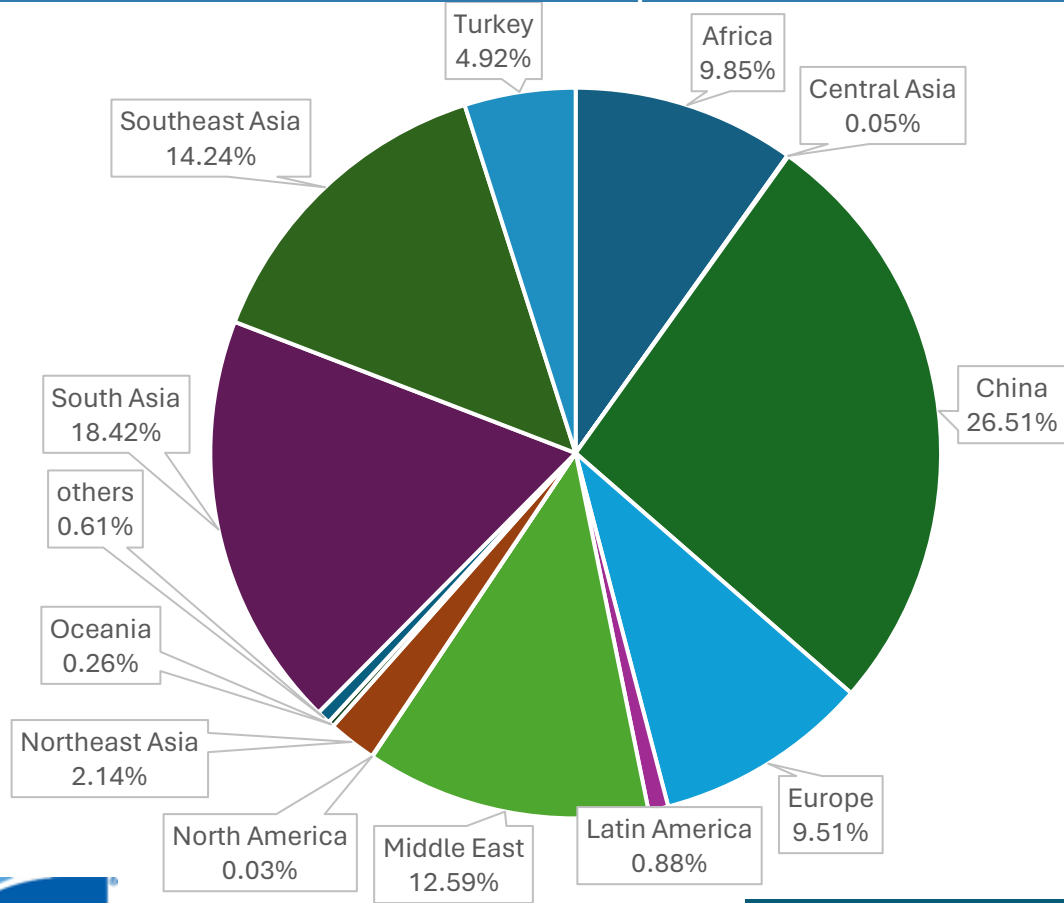
European and Turkish polyolefin prices, \$/t



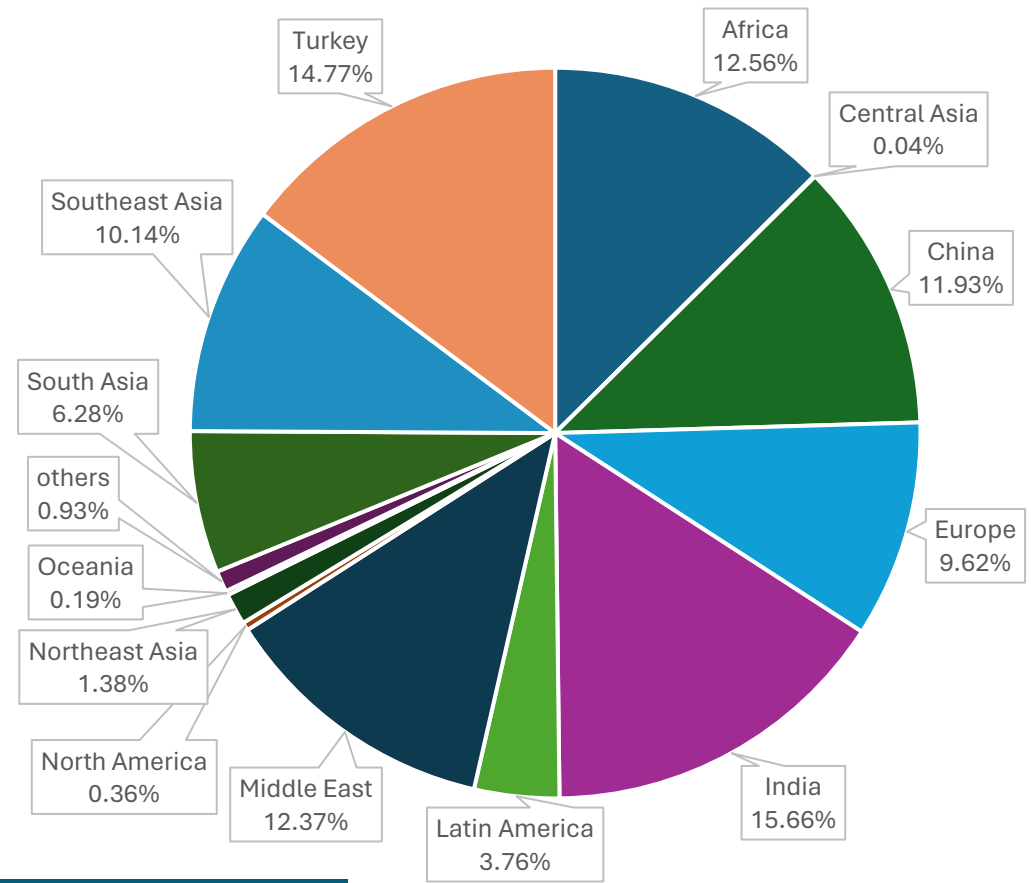
- LLDPE butene del NWE, \$/t
- LLDPE butene cfr Turkey of Mideast Gulf origin, \$/t
- PP raffia del NWE USD/t, \$/t
- PP raffia cfr Turkey of Mideast Gulf origin, \$/t
- PP fibre cfr Turkey of Mideast Gulf origin, \$/t

Diverse export options keep GCC producers afloat in troubled waters

GCC 2023 PE export share

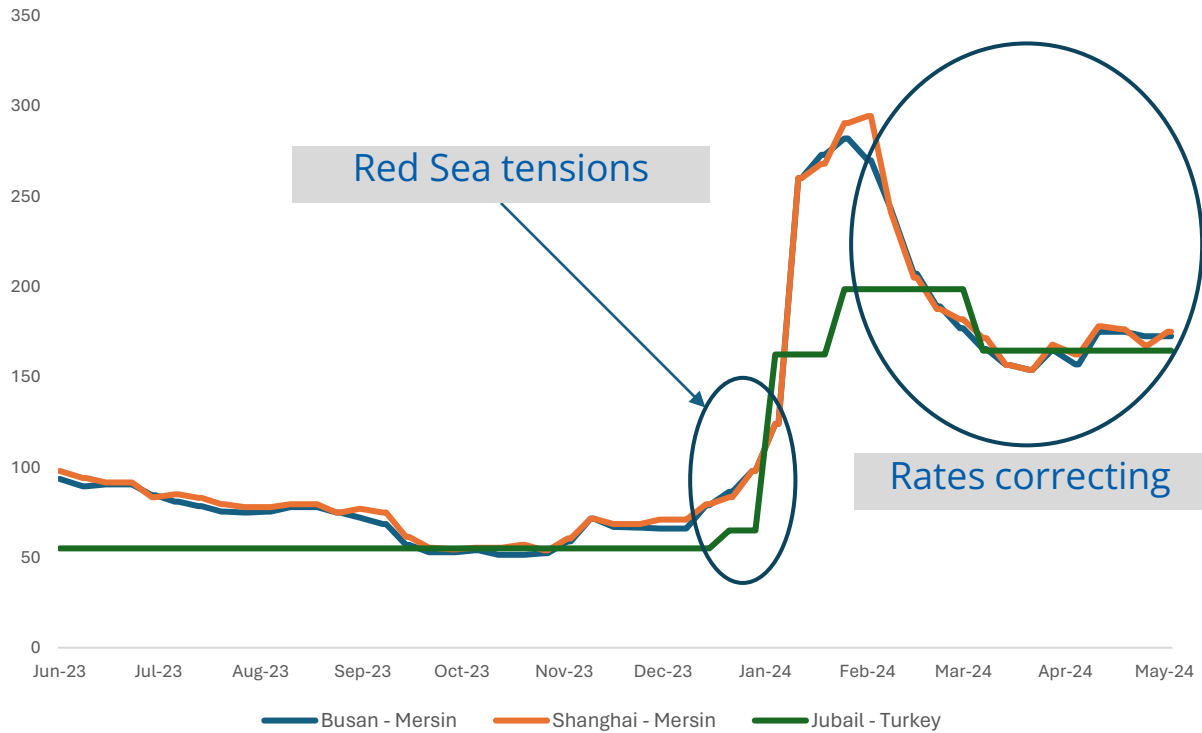


GCC 2023 PP export share

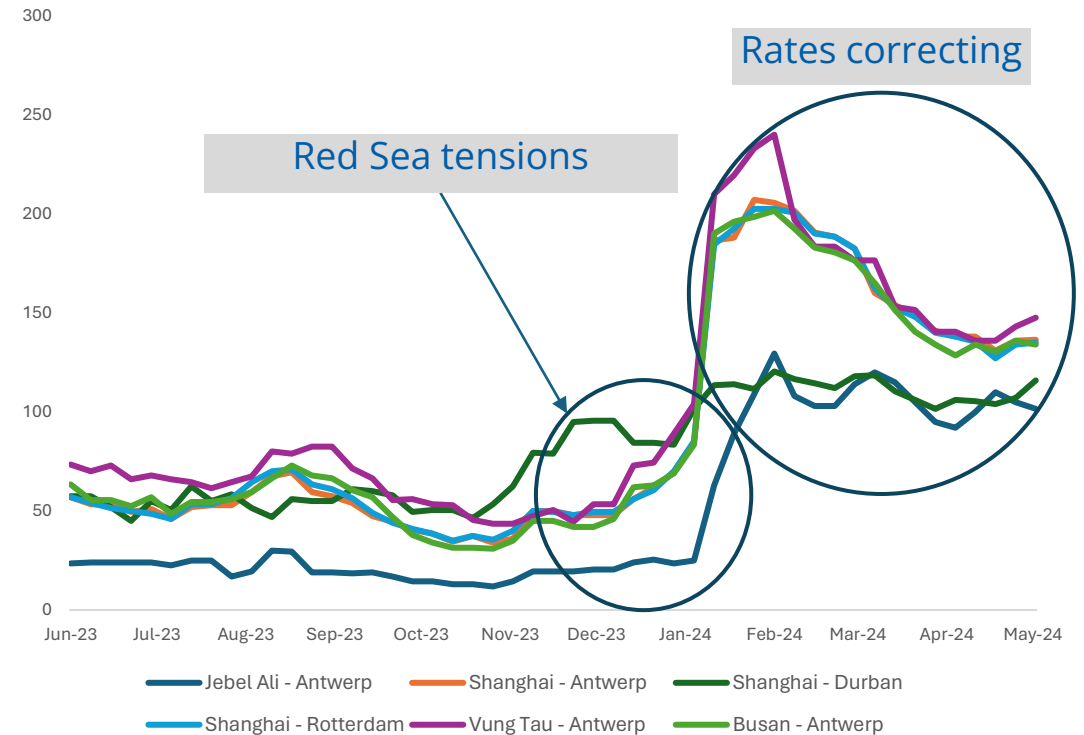


Red Sea: Freight rates from Asia to Turkey and EU start easing - ME rates stay firm

Turkey-bound freight rates, \$/t



West-bound freight rates, \$/t



| Concluding thoughts

Supply

- New producers may struggle to manage volumes, weak margins

Demand

- Modest demand growth with ongoing inflation, weak macro-economic conditions
- Chinese demand could slow down as converters shift investments elsewhere

Producers would

Do

- Reduce run rates to manage inventory
- Prioritize domestic sales, cut exports
- Acquire over build plants

Avoid

- Overproduction, compromise on margins
- Commodity grades

What does the above mean for converters?

- ASEAN countries, India with high import tariffs will see converters depend domestic supplies (*until new regional supplies come online*)
- Imports uncertain, uncompetitive – high tariffs, freight costs

Prices

- Economy, freight shocks major driver to prices. Producer shutdowns no longer a big factor with oversupply.



Further information

In the first instance please contact:

Matthew Rajendra

Email: matthew.rajendra@argusmedia.com

Call: +65 9177 1387

Thank you

