## Argus report sample

Polypropylene Analytics

Spring 2024



North America: Key updates
Operating rates will start to recover in 2027

### **About this report**

Argus Polypropylene Analytics is a data-driven evaluation of supply-demand fundamentals forecasts for global polypropylene markets, published twice a year.

The service includes a 10-year forecast and five-year history covering balances and capacities, organized by country and region.

In this sample, we share insights from Northeast America and Northeast Asia.

Subscribers receive a PowerPoint PDF written by our experts plus the accompanying Excel data files.

To find out more, <u>click here to get in touch</u>.



## **Key features**



10-year forecast and a five-year history Covering capacities, supply and demand, trade, and feedstock forecasts for leading derivatives, by country and region, published twice a year.



Detailed report
In an easy-to-read PowerPoint format
focusing on new plant capacities, growth
rates in relevant markets, and regulatory
developments.



Regional insight
Covering capacities and operating rates
based on global trade and economics.



Downloadable datasets
With data on supply, demand, capacities,
operating rates and trade balances, by
country and region.



Access to specialists
Speak to the experts behind Argus' longterm analytics forecast services.



## Associated data and analysis

### **Argus Polypropylene Analytics Service**

- This presentation is the initial publication of the Argus Polypropylene Analytics 10-year supply/demand forecast. This biannual study provides a comprehensive overview of global supply and demand fundamentals, trade patterns and balances on a regional basis.
- Argus consultants analyze the global market for polypropylene and its primary grades to derive supply/demand estimates
- It is a commercially orientated consulting service whose aim is to provide the most accurate and timely analysis of industry trends and events, including supply and demand, and cost drivers.
- Argus also offers a short-term rolling 24-months price forecast (Argus Polypropylene Outlook) backed by an analysis of future market trends.
- Detailed Excel data downloads of the supply/demand, capacity files and company balances are available to subscribers. To view a sample of this data, get in touch today.



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## **Executive summary**

### **Polypropylene analytics**

The IMF has revised up projected US growth for 2024, which it now expects to be higher than in 2023. The US is alone among advanced economies in having overcome the effects of several economic shocks this decade. Europe, China and many other emerging economies are still struggling to turn the page from the pandemic and cost-of-living crises. Shipping costs have increased because of Houthi attacks on vessels in the Red Sea but are still below the peaks of 2021-22 and are starting to decline.

China PP growth will continue to put pressure on prices as capacity increases in 2024 will position China with an pc market share in PP capacity in northeast Asia. Vietnam, India, and Bangladesh will see an increase in China exports and lower import opportunities as a result. Globally, China's capacity increase will account for almost pc of total PP capacity. Capacity expansions will be concentrated in Shandong, Zhejiang, and Guangdong regions.

A growing backlash against environmental, social and governance investing has emboldened the major oil producers against shareholder activism as the debate has shifted in favor of energy security following the war in Ukraine. As a result, support for climate initiatives and reporting has declined. Environmental pressures on plastics have also moderated as legislated alternatives have not achieved expectations, particularly as it relates to reusable bags made from polypropylene.



## **Executive summary**

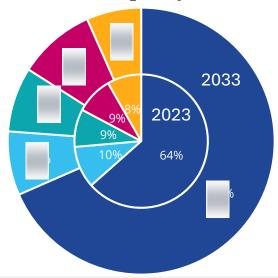
### SEA regions will export less to China going forward

- Demand and Capacity across the regions will remain at similar levels, thus trade activity will not see a significant change
- No cost advantages in any one region will develop on a sustained basis as all regions are tied to naphtha economics

## 13% 2023 6% 10% 2033

Global demand shift

### **Global capacity shift**

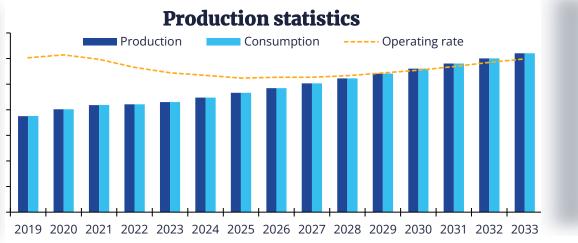


- The volume of propylene from the refinery sector will of global capacity by the end of the forecast (from the total in 2021). Refining will remain important in the US pc of capacity in 2033) and India (pc of capacity in 2033).
- The next wave of investments in Asia are likely to be based on heavier feedstock and will be a significant source of incremental propane tons



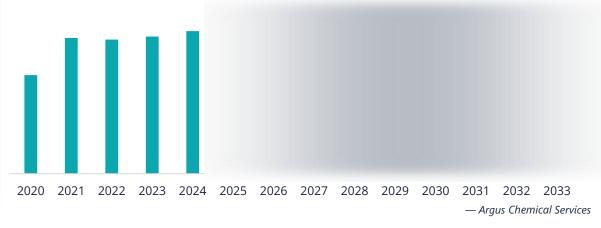
## **Executive summary**

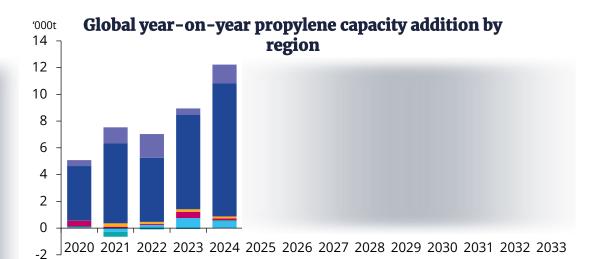
### **Polypropylene analytics**



— Argus Chemical Services

### **Annual capacity additions**





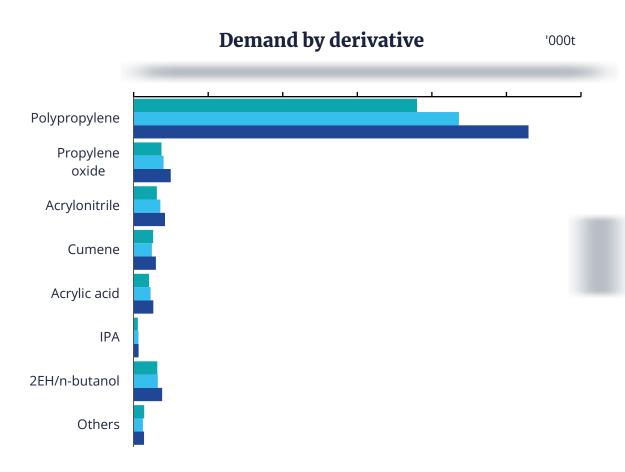
Argus Chemical Services

- PDH capacity in China accounts for new capacity additions in 2024-26. Despite this, steam cracking will remain the primary form of propylene production at the end of the forecast period, accounting for pc of capacity in 2033
- Derivative overbuild of PP/PO/ACN limit margin recovery / operating rates



## Global: Demand

### World GDP growth rate reduces in 2022 and 2023 but improves from 2024 onward.



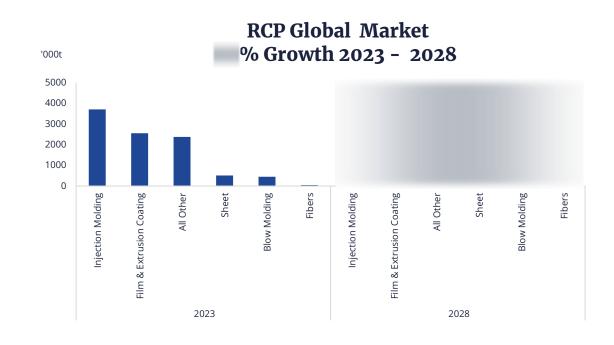
- Inflation to be more volatile than before the pandemic. Central banks likely to keep inflation close to target in the medium and long term.
- No meaningful change in the global trading system or US/China relationship. Recent tariffs and other trade barriers stay in place.
- Russia sanctions stay in place long after any cease-fire. Europe avoids any future energy problems during winter months.



## Polypropylene Demand by resin type Global PP demand to increase 25pc by 2028.







Injection molding will see the largest growth with an estimated ktons increase ( )c) by 2028

Fiber demand growth is second in volume with an increase of ktons pc) by 2028

Film and Extrusion Coating expected to grow ktons pc) by 2028

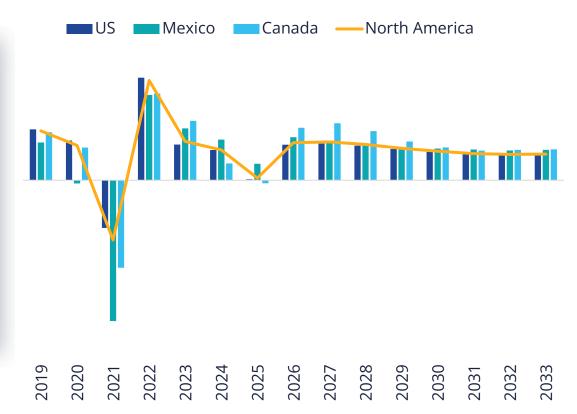
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## North America: Economy

### **Economic growth in 2025 questionable**

### **North America GDP**



— Argus Chemical Services, Oxford Economics

\*Regional GDP data is a USD GDP weighted average of all countries in the region

- IMF upgraded global economic growth due to a stronger than expected US economy and a steady growth in multiple markets. A growth rate of pc for 2024 is up slightly from the Jan. forecast but 2025 is estimating a decline to pc, The US is alone among advanced economies that overcame several economic shocks including high interest rates as the economy has already surged past its pre-pandemic trend, but high consumer credit remains a key concern.
- The IMF for some time has warned of growth risks from "geofragmentation" – the division of once global markets for commodities with other products based on political affiliation. Trade growth between economies in politically distant blocks has been percentage points slower than between politically aligned countries since Russia's invasion of Ukraine.
- Oxford Economics revised their economic growth estimates to pc for 2024 but show little growth in 2025, suggesting a more recessionary environment, somewhat aligned with the IMF forecasts that 2025 will be lower than 2024.



## North America: Key updates

### Operating rates will start to recover in 2027

### **Key Market Changes**



New PP Capacity will continue to oversupply PP demand in US markets with exports limited by PGP price spikes.

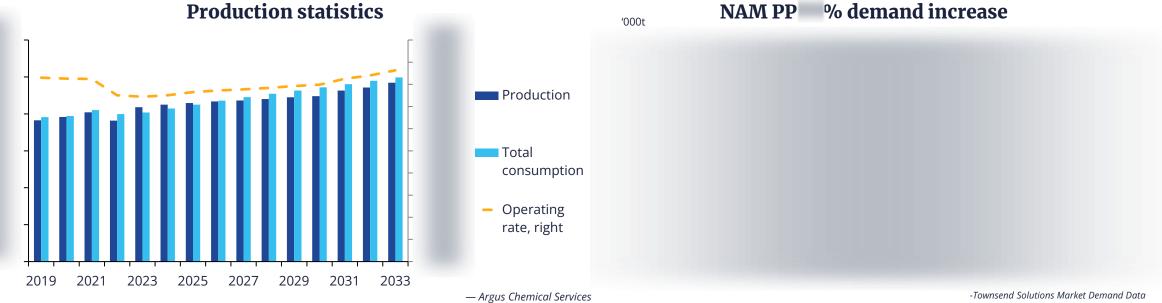


A saturated market with weak demand growth through 2026 with rebalancing starting in 2027.



Trade

Exports will be limited by PGP price spikes with increased competition from Asia-Pacific into LATAM/Mexico markets.





## North America: Supply and trade

### Some small rationalization of assets expected but little impact on operating rates.

- Formosa 250 KTA PP startup likely delayed until the end of 2024.
- is expected through 2033 forecast.
- Exports will continue to be challenged by Asia-Pacific imports into LATAM.
- Imports into the US not expected to exceed



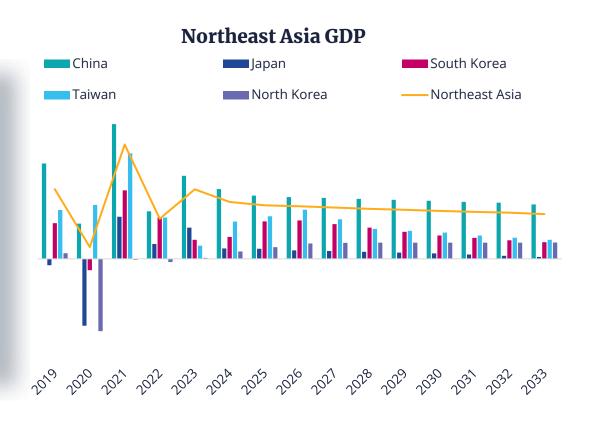


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## Northeast Asia: Economy

### Policy measures to support, not stimulate economy.



— Argus Chemical Services, Oxford Economics

\*Regional GDP data is a USD GDP weighted average of all countries in the region

- The economy is expected to remain in a persistently-low inflation environment given expectations of slower demand growth and continued supply-side stimulus. As such, in contrast to previous easing cycles where onshore stimulus generated significant growth spillovers to other economies, the current easing cycle is likely to affect the rest of the world mainly through disinflationary impulses.
- A growth target of around pc is based on growth, sustainability, and supporting private sector confidence. A small positive fiscal impulse, is expected to hold the GPD at around (from a revised pc in 2023). To the extent that a higher target is announced, this will drive upside to growth forecasts as China rarely misses its growth target. Overall GDP is expected to average between through 2033.
- 2024 has seen a meaningful drop in the average spending value by each consumer domestically ("spending per head"), underscoring the structural trend of consumption downgrading onshore.



## Northeast Asia: Key updates

Polypropylene demand recovers in line with GDP growth rates while capacity is experiencing fast expansion through to 2028, keeping operating rates low.

### **Key Market Changes**



Supply will continue to grow driven by China's fast expansion in PP capacity which will 3 once investments starts cooling down. China's share of regional PP production in the region will by 2033.

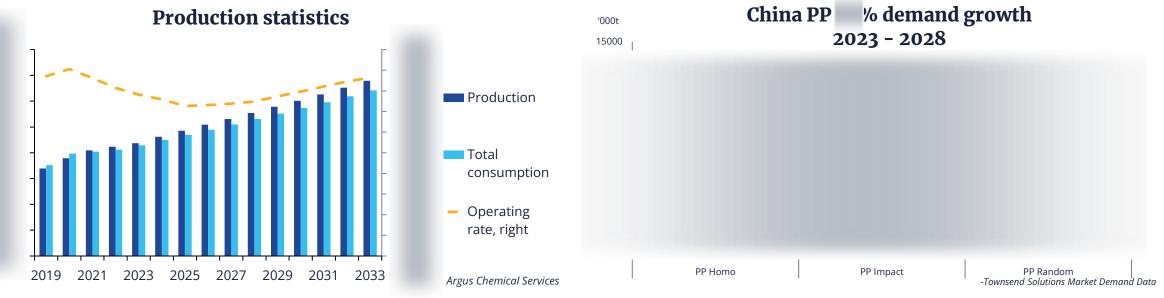


Demand recovery remains slower than expected as the region struggles with weak microeconomics.



Trade

China will remain a net importer but will turn into a net exporter by 2033. Import volumes are to soften driven by increased domestic production while exports are to increase.



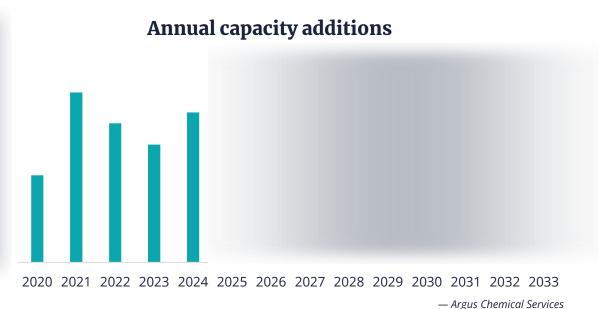


## Northeast Asia: Supply and trade

## China leads the majority expansion which will weigh on regional operating rates and force rationalization.

- Northeast Asia capacity is expected to reach expansion by at t, with a CAGR of before cooling down. China leads the expansion by adding t/yr. into the capacity by 2028. The biggest challenge China is facing is that the speed of adding new production capacity far exceeds the demand growth.
- Uncompetitive units in NEA might see closure driven by weak cash flow and margins over the period, which has been reflected in the balance. Outdated and small-scale units will be upgraded or eliminated, but rationalization alone cannot solve the issue of excess capacity.
- Northeast Asian demand is expected to grow steadily at a CAGR of in 2023-2028. China has consistently stimulated the economy post pandemic, but the efforts are still insufficient. Slow infrastructural investment and low birth rate across NEA over the long term will result in slower polymer growth. Domestic demand in South Korea, Japan and Taiwan will not see significant improvement with their growth rates unlikely to return to historical levels before pandemic.







# We hope you found this sample report for Argus Polypropylene Analytics valuable.

The Argus Polypropylene Analytics service is for anyone engaged in the polypropylene market and seeking insight into the fundamentals driving key trends, including global supply, demand growth, exports and operating rates.

If you want to learn more about becoming an Argus subscriber and receiving full PDF reports complete with accompanying Excel data files twice a year, click below:

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## **Meet our experts**



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## **Terry Glass**Lead Consultant Ethylene and Derivatives

Terry is responsible for the expansion of Polymer Report services in strategic regions. He has over 40 years' experience relating to the plastics industry, working with converters, brand owners, and resin producers. Before joining Argus, Terry worked at Dow Chemical, Braskem, and Sasol. He holds a Chemistry degree from the University of Houston and 26 patents across a variety of market applications.



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## **Craig Fisher**Lead Consultant Propylene

Craig is a member of the Argus Media olefins team focusing on propylene and associated derivatives. He contributes to the monthly Olefins Outlook report, the biannual Propylene Analytics report, and provides support to both internal stakeholders and external clients. Craig has nearly 25 years' experience in the petrochemical industry including roles with producers and consultants. The variety of products covered in his career include polymers, olefins, aromatics, asphalt, methanol, inorganics, OXO Alcohols, and electricity



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Cassidy is an analyst in Houston focused on polymers and methanol markets, data science initiatives, product development and content creation. Prior to joining the Chemicals team, she led various operation roles at Argus and McKinsey. Cassidy holds a degree from The University of Michigan and an MBA from University of Houston.



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Josie is an analyst in Shanghai focused on olefins and polyolefins markets. Her experience includes working at Pacific Gas as a market analyst in the strategic department, focusing on LPG, ethane, shipping and financial markets. Josie is a chartered financial analyst and holds a bachelor's degree in economics, and a master's in finance and investment from the University of Bristol.



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## **Sarah Rae**Vice-President Propylene and Derivatives

Sarah Rae is Argus' propylene consultant focusing primarily on Europe and the Middle East. For 17 years prior to joining Argus, Sarah held senior strategic purchasing management positions at Ineos, Tessenderlo Chemie and Rhodia, responsible for a wide range of materials including olefins, fertilizers and commodity raw materials. Before this, Sarah held various management and project roles covering most aspects of the chemical business, including business management, sales, planning and logistics. She graduated with a degree in geology from Leicester University.



## Appendix: Argus acronyms

PP Types	Units	Regions	Process	Financial
HPP – homopolymer polypropylene	'000t – thousands of tonnes	WE – Western Europe	FCC – fluidized catalytic cracking	GDP – Gross domestic product
ICP – impact copolymers	kt – kilo tonnes	LATAM— Latin America and Caribbean	HS-FCC – high severity fluidized catalytic cracking	
IM – injection molding	kta – kilo tonnes / annum	ME – Middle East	PDH – propane dehydrogenation	
BOPP – biaxially oriented polypropylene		NAM – North America		
PGP – Polymer Grade Propylene		NEA – Northeast Asia		
		SEA – Southeast Asia		



## Polypropylene analytics methodology

### **Period presented**

The annual period for this study is the historical years 2019 through 2023, and forecast data for 2024 through 2033, inclusive.

### **Analysis and forecasting**

The Analytics service contains detailed information such as capacities, production, demand and trade for most producing and consuming countries in the world. Demand forecasts are based on relationships to derivative and end-use consumption trends and expected country-by-country economic growth projections. Argus uses data, market opinions and views on market trends to develop the medium-term supply and demand and corresponding price and margin forecasts. When appropriate, Argus makes adjustments to published data, for example trade data reported by countries or government-reported statistics. Although data gathering is essential to understanding the market's history and potential future trends, Argus believes the interpretation of this data is the most valuable part of this analysis.

### Weights, currencies and percentages

Unless explicitly stated, all weights are given in metric tons and all references to dollars are to US dollars. Currency conversions have been made either at a current or relevant historical exchange rate, as required by the context. Numbers may be rounded. This means that table totals may differ from the sum of the individual figures, and percentages may sometimes appear not to total exactly 100pc.

### Your feedback is welcome

Argus thanks our valuable clients and contacts for sharing opinions and expertise during the compilation process. Data verification is the cornerstone of to the quality of the analysis, and the input received from global market participants is critical to arriving at logical and realistic conclusions. It is important that this product meets client's expectations, and we encourage feedback to ensure continuous improvement. If additional company-specific or more detailed long-term analysis is desired regarding ethylene or other petrochemicals, please contact the Argus team.



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#### ISSN: 3029-0309

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