Argus report sample

Argus Toluene and Xylenes Outlook

May 2024

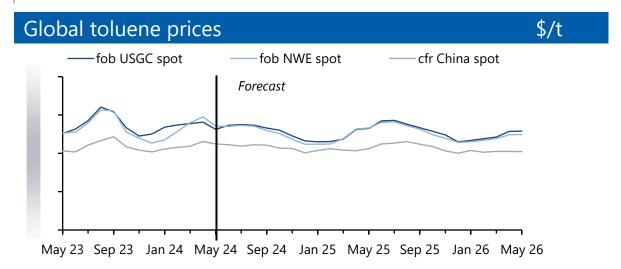


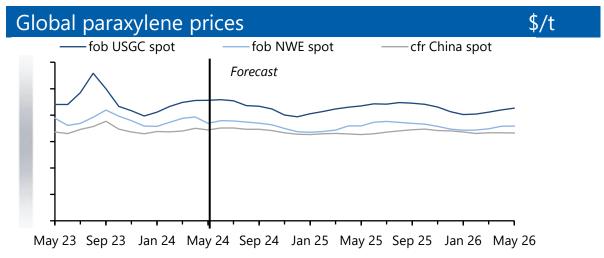
Executive summary and price forecast 0 Crude, feedstock and forecast differentials Arbitrage forecast **Argus** direct HOME MARKETS WORKSPACES PRICES & DATA NEWS & ANALYSIS METHODOLOGY & RESOURCES PUBLIC Asia-Pacific Toluene/Xylenes Outlook Talk to our TX experts 3-month forecast snapshot - USD/t Simon Palmer is responsible for steering Argus' global aromatics coverage. He brings more than 40 Description **Americas** years' experience from across several PX cfr China petrochemical sectors including aromatic hydrocarbons, hydrocarbon processing, plastics manufacturing, PX cfr China market consulting and petrochemical trading, plus major project management and strategy/business develops worked in both Europe and the US and is now Now available: Subscribers can Europe Houston, Texas. Simon has also worked for I access the interactive Enterprises (Saudi Aramco). Toluene/Xylenes Outlook Jeff Eickholt is a Senior Analy sector supporting Aromatics Workspace on Argus Direct also worked for Shell for over analytical roles, most recently as a RISK Analyst their chemicals division where he advised Toluene Europe contract commercial and finance staff on pricing structures, risk management, and contract development. Jeff holds a Toluene fob South Korea certification in Data Analytics from Rice University plus a degree Plan ahead using our TX services Global TX price history



Toluene and xylenes outlook executive summary

European toluene prices will continue to slip without support from the US. Asia-Pacific should benefit from lower naphtha costs, while octane shipments to the US are fading somewhat.





What's changed

- The crude forecast is reduced to account for profit taking but unchanged thereafter.
- Global naphtha prices are moderating as high prices undermine any recovery in petrochemicals.
- Despite residual refinery maintenance, US gasoline and octane prices likely have limited upside.
- US toluene conversion margins have opened up, but operations remained restrained.
- Strong western BTX prices continue to attract intermediate imports, reducing local monomer usage.



Toluene and xylenes outlook executive summary

Flows of intermediates and polymers into western markets continue to build while recent high feedstock prices have also accelerated polymer substitution.

Crude and products

Global toluene and mixed xylenes

Near-term outlook

The crude price forecast trajectory has been lowered in the very short-term to reflect recent profit taking but otherwise has been held steady. The WTI discount below North Sea Dated is unchanged. Product cracks have weakened across the board. Naphtha demand in Asia has slowed while European product imports are higher. US octane values have not followed through on recent gains.

Longer-term outlook

The longer-term crude outlook is once again unchanged, with the WTI differential holding steady. The degree of backwardation to year-end 2024 has been moderated. The gasoline backwardation to early 2025 remains steep and the 2025 season has been strengthened. Accordingly, the wider naphtha-gasoline spread has now been carried over to 2025. The gasoline basis for 2025 now looks similar to this year but octane values are still projected to be more moderate.

Near-term outlook

Volumes of aromatic octane moving into the fuels pool continue to be steady, but this is not translating into firmer values. Premiums over gasoline have been falling. Overall supply of octane components remains adequate, with imports continuing to help take the edge off prices. Shipments of octane components ex-Asia appear to be slowing somewhat, with Panama Canal rotations continuing to be viable.

Longer-term outlook

Imports of intermediates and polymers into the Atlantic Basin continue to threaten domestic demand for base petrochemicals. Lower trade barriers in Latin America may well increase polymer imports. Less demand for monomers will continue to threaten the viability of assets in the upper reaches of the cost curve. Incentives to increase petrochemical production from refineries in China threaten to further accelerate this trend.



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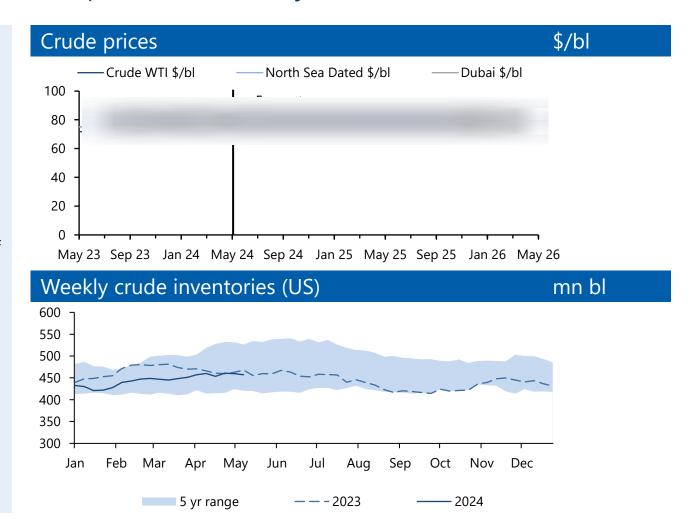


Global crude forecast

The forecast trajectory is kept steady, although near-term prices have been adjusted lower.

Market commentary and outlook

- The crude price forecast has been lowered in the short-term (3-mo) to reflect recent profit taking and some de-escalation in Middle East tensions. The longer-term outlook and the WTI discount below North Sea Dated however have been left unchanged. Overall, NSD and WTI averages for 2024 are down /bl, while both are unchanged for 2025. The backwardation through the remainder of 2024 has been moderated to just over | bl, June to December.
- The de-escalation of tensions between Israel and Iran means the market is no longer pricing in the possible loss of up to b/d of Iranian crude and condensate exports, nor the potential disruption of up to n b/d of crude and products which flow through the Strait of Hormuz.
- On the macroeconomic level, flows of containerized products into Europe continue to rise, and the threat is increasing as domestic petrochemical demand in Asia weakens. European manufacturing activity remains low, although there has been some improvement in confidence levels. US consumption continues to surprise to the upside, but consumer cost pressures remain elevated and inflation data remains disappointing.
- The outlook for crude remains mixed, but overall, it is believed that production restraint will continue to be forthcoming. Accordingly, Argus





Global products and aromatics feedstock forecast

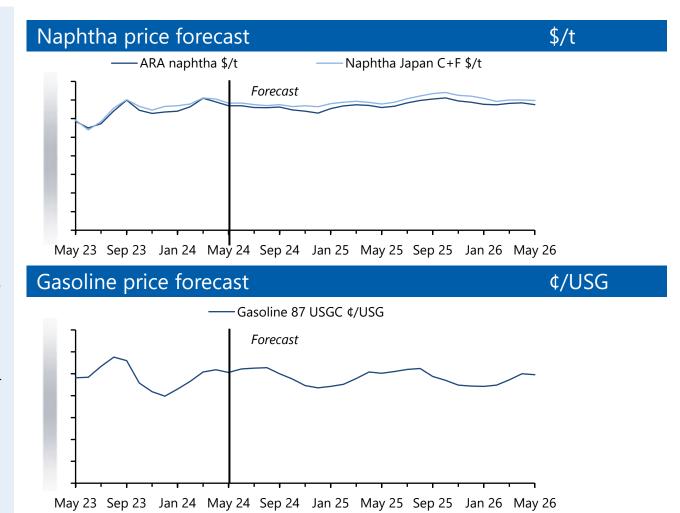
Slowing demand into the petrochemical sector in Asia-Pacific has moderated the naphtha outlook.

Naphtha market and outlook

- The naphtha forecast have been moderated in the short-term as demand into petrochemicals in Asia has succumbed to elevated prices. Farther out, forecasts for 2025 remain comparatively strong, but high costs will constrain demand.
- Recent constraints on naphtha supply due to turnarounds in the Middle East have boosted US exports and provided decent netbacks for refiners. This has absorbed any surplus US supply and capped naphtha blending into gasoline. This in turn, limits the need for incremental aromatic octane. Some natural gasoline remains available for blending but discounts are modest.
- US naphtha prices remain forecast at a more moderate discount level to global prices, which again limits the likely incentive for incremental gasoline blending.

Gasoline market and outlook

- US gasoline prices continue to trade at a modest premium over global pricing, but US prices are expected to hit their peak shortly. US gasoline inventories have been steady at a time when they customarily tend to decline.
- US gasoline is forecast slightly lower for the balance of 2024, reflecting weaker cracks. The forecast remains
- Premium gasoline forecasts have been revised lower for 2024, with the peak regrade spread from RUL being reduced to . The average regrade for 2025 has also been reduced by a penny.
- The risks to gasoline supply highlighted in recent months are continuing to
 moderate, and this has been reflected in the market. Component inventories are
 recovering. This being said, this market can easily flip, just as peak blending
 season is called done. The outlook for 2025 remains more moderate, despite
 higher forecast gasoline prices, as we expect refiners to be further optimized.





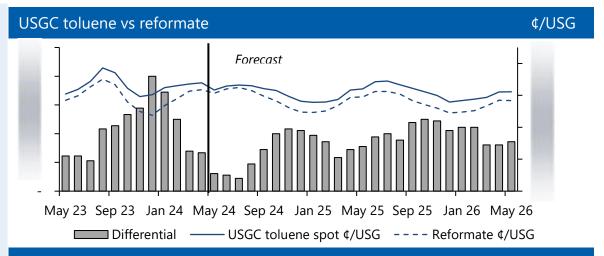
Energy pricing differentials and alternative values

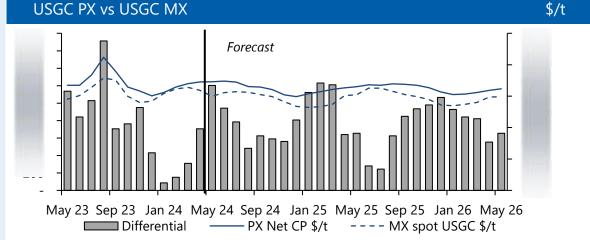
US premium-to-regular gasoline spreads have corrected, and the outlook has been moderated.

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Forecast price spreads and alternative values

- As suspected, the recent blowout of the US premium to regular gasoline spread, which is a key driver of the value of aromatic octane, was indeed temporary and has corrected lower again. Limited liquidity in the premium market makes adjustments based on one-off deals unreliable, so some caution is always exercised. The peak of the forecast has also been moderated back into the Grange, although in actuality we are running slightly ahead of 2023.
- The naphtha gasoline spread, which is another indication of the incremental value of aromatic octane, is now running slightly below this time last year, but primarily due to relative strength in naphtha. The bloom is coming off naphtha's rose however, as prices weaken in Asia. For the moment, the
- Reformate spreads over gasoline have been comparatively firm so far in 2024
 as the impact of 1Q24 refinery maintenance on upgrading capability has been
 pronounced. There are indications however, that spreads may be under
 pressure as blendstock supply recovers. Accordingly, the forecast shows
 limited upside over the current
 octane somewhat range bound.
- Blend value alternatives for aromatics kicked off the year decently, with slightly wider premiums over gasoline than in 2023, but again there are signs of weakening. Also recall, that these blend values are theoretical calculations based upon a rather illiquid premium gasoline cash market, and true market prices are struggling to get anywhere close to these calculated values.

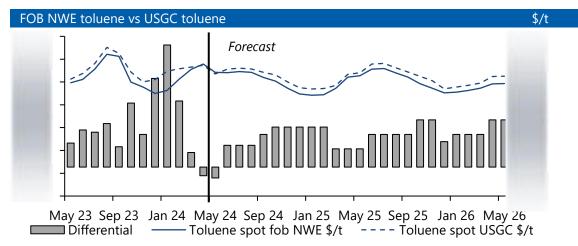


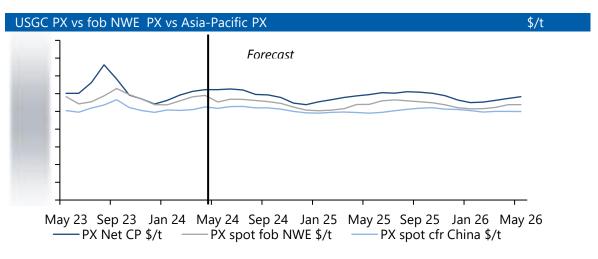


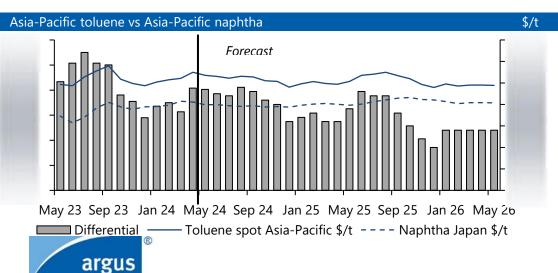


Energy pricing differentials and alternative values

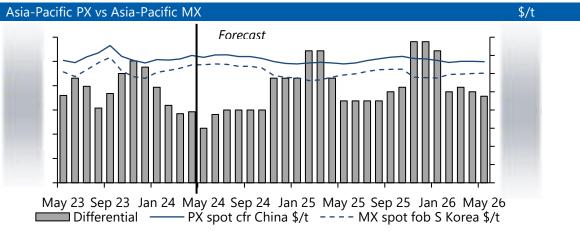
The probability of higher returns for aromatics in the octane pool in the US is beginning to wane, and freight enquiries from east of Suez are slowing. This may be a false indicator, but it increases risks.







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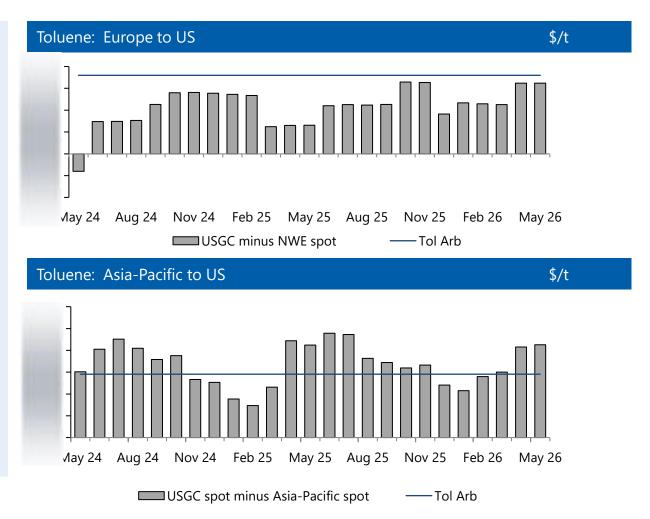


Arbitrage forecast

European toluene is falling and looking for support from the US. Toluene and mixed xylenes movements to the US from Asia-Pacific are slowing as the window of opportunity starts to close.

Trade lane commentary

- Relative to the last two years, US gasoline values have been somewhat of a
 disappointment for many this year. Volumes have been decent so far but
 prices have been tending to migrate back towards their long-term averages
 rather than probing for upside. This is dampening the enthusiasm to ship
 aromatic octane from Asia, with freight enquiries slowing markedly. Vessels
 are being fixed via the Panama Canal, which reduces the voyage time, but
 June loading means July arrival, and July normally signals the end of peak
 blending values.
- European aromatics prices have lost much of their luster over the past month and are now looking for some support from the US. This support is lacking, at least from a toluene and mixed xylenes perspective, as alternatives into gasoline have been falling. It also does not help that imports of intermediates and derivatives into Europe continue to build, which is limiting producer's opportunities to make incremental sales.
- As shipments of aromatics through the Suez Canal continue to be heavily disrupted, Middle East production is looking for alternative destinations, and competing aggressively both in Asia, and in the Atlantic Basin. This increased competition in Asia is similarly pushing Asian derivative production into the Americas. Asian paraxylene continues to show up more consistently in the Americas, although new fixtures are slowing. This pressure from Asia however will continue to be a factor now that Panama Canal backlogs have been reduced.

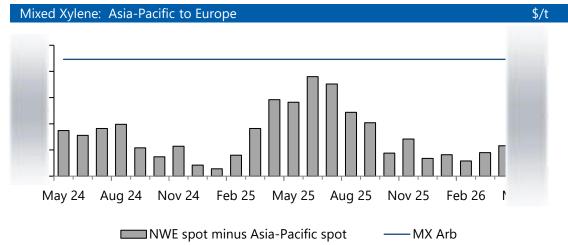


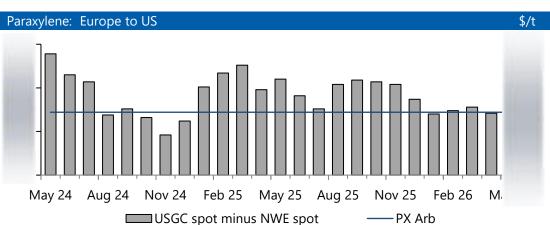


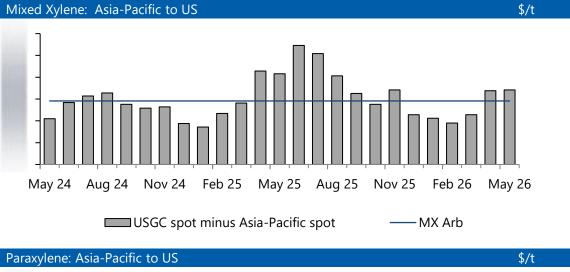
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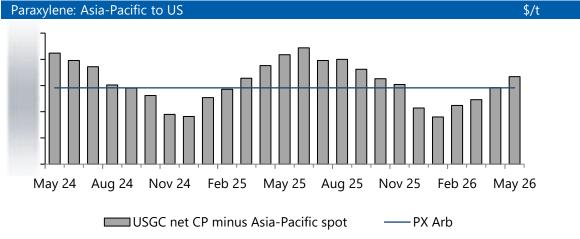
Arbitrage forecast

Opportunities to move aromatic octane from Asia-Pacific to the US are indeed dwindling, with considerable price risk on the water.









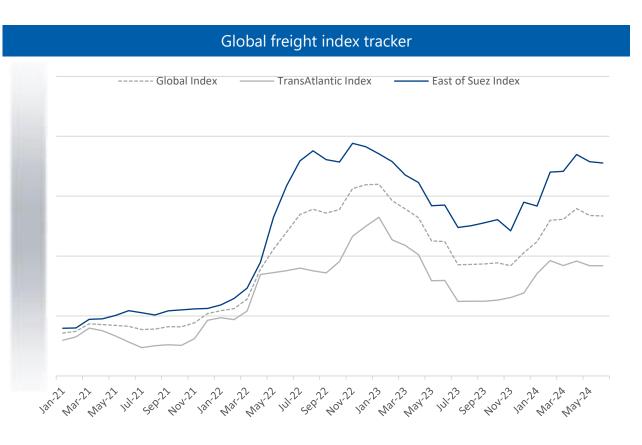
Global freight rates

A slowing in new enquiries and more tonnage coming on-berth is seeing freight rates plateau, and in some cases, subside.

Freight market summary

- Global bulk "easy-chems" freight rates have fallen back slightly during 1H May, as new enquiries have slowed, and more vessels are being presented by owners. On most major routes, rates have either lost their upward momentum or indeed fallen below April's finishing levels.
- Most owners continue to avoid the Gulf of Aden, while more charters are
 fixing through the Panama Canal, although many owners remain cautious as
 auction rates have been highly volatile. The shorter duration voyages are
 helping supply chains in North America equilibrate. Europe continues to see a
 pick-up in containerized product arrivals, and bulk petrochemical markets are
 beginning to emerge from recent production issues.
- Demand for full vessels for mixed BTX products from Korea to the US Gulf has
 eased somewhat, and MR full vessel rates have steadied. The lack of a
 diversion around the COGH has seen charter rates fall back around
 Interest in moving mixed toluene, mixed xylenes and paraxylene cargoes has
 slowed as US gasoline values continue to disappoint. Local netbacks for
 products such as paraxylene remain soft however, prompting some interest to
 export to the US.
- The Argus global easy-chems freight index decreased around F to 6 points in May. Current average freight only rates for May/June are at _____: of the basis value (Jan 2016), which represents a _____ nt increase since recent lows in ______ April. Nates east of Suez are also lower at 220pc, with Mix rule vessel flat-fates



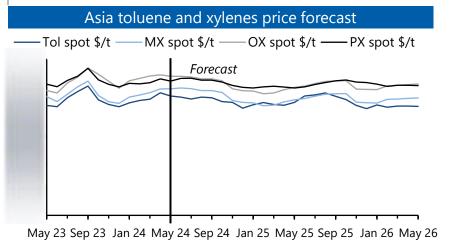


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Asia-Pacific: Market outlook and price forecast

Aromatics unit shutdowns could raise spreads against naphtha.



	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sep 24	Oct 24
Tol spot \$/t							
MX spot \$/t							
OX spot \$/t							
PX spot \$/t							

Forecast summary

- PX: Despite downstream outages, prices will continue to be cushioned due to scheduled maintenance. In China, Dongying Weilian is shutting its yr PX units in Shandong for a 45-day scheduled outage. PX supply is expected to lengthen in July, following plant restarts.
- MX: Firm gasoline demand in China could lead to limited utilization of gasoline export quotas. This could potentially be limited by the shutdown of various PX units in Asia SK Geo Centric shut its t/yr PX units in Ulsan earlier in May for 45 days. Japanese producer Eneos also shut its //yr PX plant in Oita for up to 90 days.
- Toluene: Supplies in southeast Asia might be tighter in the short term because of outages. Demand would continue to improve with more restocking activities among downstream players.

Upside risk

- Crude prices may continue to trade at elevated prices if OPEC+ extends production cuts
- The planned reimposition of US sanctions on Venezuela oil exports could also boost crude prices.
- Tighter toluene supplies in SE Asia could limit incremental spot availability and support prices.
- Renewed confidence in a late season rebound in gasoline could prompt increased exports.

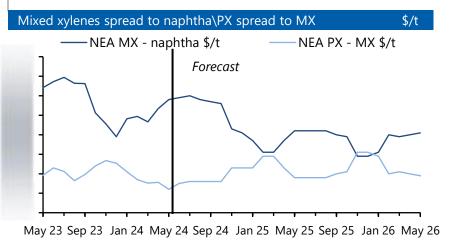
Downside risk

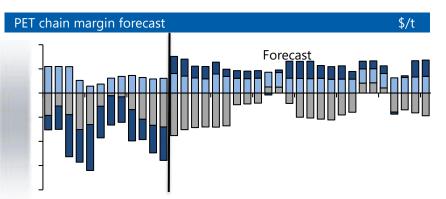
- Weakening naphtha fundamentals could further lower the production cost floor under aromatics.
- Anticipation of rising MX supplies after several turnarounds could suppress prices and margins.
- Several anticipated shutdowns of PTA units in China will lead to lower PX demand.
- Further fading of US gasoline could halt export activity and eliminate this alternative disposition.



Asia-Pacific: Cost and margin outlook

Tighter toluene supplies in southeast Asia could support prices in the short term because of outages.





May 23 Sep 23 Jan 24 May 24 Sep 24 Jan 25 May 25 Sep 25 Jan 26 May 26

■ PTA \$/t

■ PET Resin \$/t



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Costs

- Naphtha feed: Naphtha discounts are projected to remain wide, with regional crackers still favoring LPG. However, with Chinese refiners having secured another monthly lows.
- Toluene: Tighter supplies in SE Asia could support prices in the short term because of outages. Restocking activities among downstream players would bolster prices further. JG Summit shut its aromatics unit because of technical issues at its cracker in Batangas, The Philippines.
- Paraxylene: PX values could further weaken due to a turnaround in June at Fuhua Gulei's t/yr PTA plant. In addition, four major PTA producers, including Hengli Petrochemical, Shenghong, Tongkun, Dongying Weilian in China shut their PTA units in May for maintenance.
- Mixed xylene: Asia-Pacific MX prices may retreat as buying interests are postponed due to declining energy values and PX shutdowns. Some support could be found in the octane market.

Margins

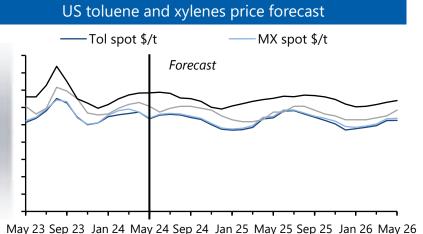
- Reformate/pygas recovery: Gasoline values are forecast to remain somewhat firm, with strong domestic demand limiting use of China's gasoline export quotas. On the other hand, offshore consumption is expected to start to fade in July, thus capping the upsides from China's limited gasoline exports.
- Toluene conversion (TDP and STDP): TDP and SDTP margins narrowed noticeably compared to March and April, indicating that the driving season still has sufficient clout to divert toluene away to gasoline blending.
- PTA: The current operating rates of polyester capacity in the low nineties in China can continue to support PTA consumption in the near term.

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Americas: Market outlook and price forecast

The flow of octane components from Asia looks to be slowing, which might impact some support on local US aromatics prices and margins.





Forecast summary

- The floor underpinning the markets for toluene and mixed xylenes may be turning out to be a false bottom and domestic consumption for chemicals is expected to remain weak.
- US refiners are managing to hold inventories of finished gasoline and blendstocks steady. This is limiting the appreciation potential for short-term gasoline values.
- Despite fluctuations in incremental margins, aromatics producers will likely remain cautious when it comes to their conversion operations as the downstream paraxylene market remains fragile.

Upside risk

- Despite there being the occasional flicker of margins, scrutiny of BTX operations remains intense and supply continues to be restrained.
- Inventories of finished gasoline and components are recovering but we are now entering the north Atlantic hurricane season with all the risks and uncertainties that come along with it.

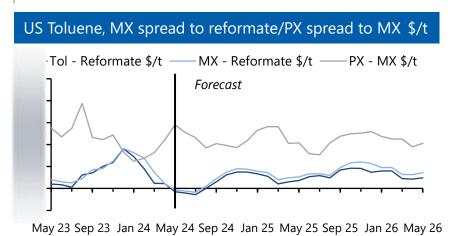
Downside risk

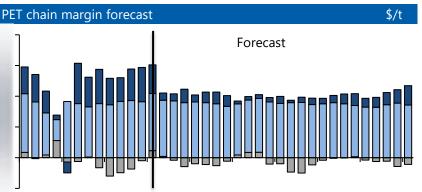
- Poor local alternatives may continue to provoke shipments of octane components out of Asia and the MIddle east. This would pressure the US market in the medium term.
- Intermediates and polymer consumption in the US is definitely being impacted by high local costs, which also encourages the flow of cheaper containerized derivative imports.

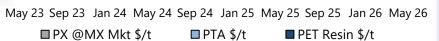


Americas: Cost and margin outlook

BTX recovery costs have been falling as reformate values drift and gasoline blend alternatives falter. Conversion margins have expanded but chain margins remain somewhat compressed.









Costs

- BTX recovery costs: Padd 2 refinery maintenance is eroding product inventories, but elsewhere stocks are holding steady. This is helping cap reformate prices and keeping a lid on octane values. The opportunity for upside is starting to close.
- Conversion costs: Alternative values for toluene in gasoline have been drifting, and this is starting to preclude the chance of upside. Conversion costs to mixed xylenes and paraxylene are also falling, but competition from imported intermediates and polymers remains high. Most conversion units remain idle and the hesitation to commit to additional conversion supply is completely understandable. Confidence levels however may increase if gasoline continues to be lackluster.
 Margins
- BTX recovery from reformate: USGC reformate costs have been flat to slightly lower, but recovery margins have remained very thin. The reformate market is notoriously fickle, especially at this time of year, but fundamentals suggest a declining chance of short-term upside and given time, BTX recovery margins should see some recovery.
- Toluene conversion: Costs should benefit from lower alternative values in gasoline and the lower risk of significant upside to costs. Conversion margins to mixed xylenes and paraxylene however remain fragile due to poor international competitiveness.
- Paraxylene recovery: Despite recent reductions, US costs remain high compared to other regions, which maintains the competitiveness of imported intermediates and polymers. PET producers will continue to evaluate their global operations in that context, and this will cap domestic consumption of PX and PTA.
- Co-product contributions: Despite derivative turnarounds, US benzene prices have remained mostly steady, even as reformate and TX prices have faltered. Restrained production and slightly.

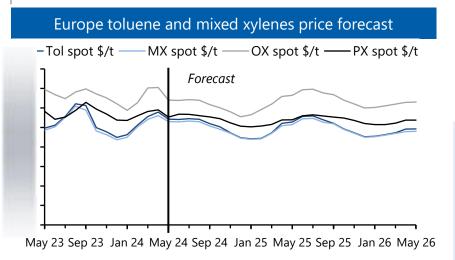


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Europe: Market outlook and price forecast

Gasoline blending demand is forecasted to recover somewhat in the upcoming months as peak driving season hits in Europe and the US.



	Apr 24	May 24	Jun 24	Jul 24	Aug 24	Sep 24	Oct 24
Tol spot \$/t							
MX spot \$/t							
OX spot \$/t							
PX spot \$/t							

Forecast summary

- Gasoline inventories in the EU15 + Norway fell by 16pc month-on-month in April, registering at 8.8mn bl according to the latest Euroilstock data, and were 2.2pc lower on the year.
- Supply availability across the toluene and xylenes value chains is long-to-balanced.
- Gasoline blending demand is forecasted to recover from a quiet few weeks of holidays across the region, as traders anticipate some higher demand for domestic and US driving seasons.
- Petrochemical demand is stable to quiet, with increased freight costs for imports buoying domestic prices.

Upside risk

- Summer peak season to materialize with an uptick in demand for plastic bottles and other consumer products as holidays and travel kicks off.
- Recovery in oil, gasoline and wider energy markets if driving season commences in Europe and US.

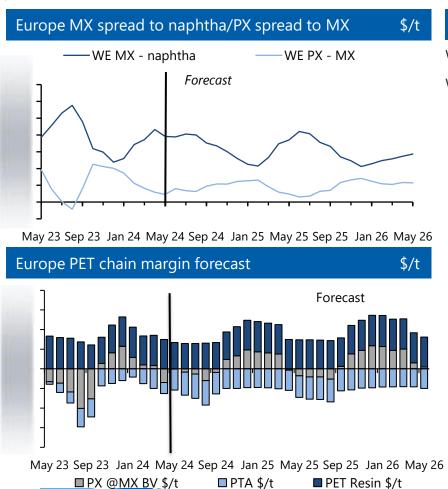
Downside risk

- Lack of consumption recovery for summer season due to economic uncertainty and high inflation, and high inventories due to re-stocking activities earlier in the year.
- Influx of imports to flood into the region if freight rates reduce.



Europe: Cost and margin outlook

Higher freight costs for downstream product imports supports polyester value chain, whilst gasoline blending premiums easing incentivizes MX spot deals.





Costs

- The assoline-naphtha spread has averaged ar this month, declining from the April average of esulting in the ease in TX premiums for gasoline blending.
- The natural gas TTF monthly index average extended up in May so far, to Vh, compared to April, at Vh.
- Incremental MX volumes have exchanged hands at prices in the low to mid emium to gasoline, and notional toluene ranges at remium to gasoline range. The range between MX and toluene has eased with little activity for 1DI-toluene deals.

Margins

- The benzene-toluene spread averages : in May so far, strengthening from the April average of \$20/t. TDI-grade material supply has lengthened somewhat, with more prompt availability and less downstream demand.
- The PX-MX spread is at an average of welcome falls in MX prices whilst spot PX prices ease to a lesser extent. However, a major PX producer continues to sell MX feedstocks to the gasoline blending market in the last few weeks as the recovery in PX-MX spread remains below profitable levels.
- European PTA producers continue to operate at relatively firm utilization rates, as higher freight costs weigh on imports for immediate delivery supporting the domestic prompt market. Similarly, PET resin and fiber demand is robust with prices supported by more expensive imports.

Argus aromatics experts



Simon Palmer Vice President Global Aromatics

Simon Palmer joined Argus as VP, Global Aromatics in 2021, and is based in Texas. He has broad experiences from across the petrochemical industry. He has worked in both petrochemical and plastics production, market consulting, petrochemical trading, major project management, and strategy and business development. He spent his formative years in Europe working for ICI plc before moving to ICI Americas in the US. Since then, he has spent close to 10 years in industry and over 20 years in market consulting, primarily specializing in aromatic hydrocarbons. Prior to joining Argus, he worked in Strategy and Business Development with Motiva Enterprises, a wholly-owned affiliate of Saudi Aramco.



Santosh Navada Senior Analyst

Santosh provides data and analytics support to the aromatics and related product areas in the Asia-Pacific region and is based in Mumbai. He has nearly ten years of market research experience related to chemicals and bulk materials including time with MarketsandMarkets, Bureau Veritas and AgileIntel. Santosh holds an undergraduate degree in chemical engineering.



Jeff Eickholt Senior Market Analyst

Jeff is a Senior Analyst in the chemicals sector supporting Aromatics and MTBE and is based in Houston. Prior to joining Argus, Jeff worked for Shell for over 20 years in various analytical roles, most recently as a Risk Analyst in their chemicals division where he advised commercial and finance teams on pricing structures, risk management, and contract development. Jeff holds a certification in Data Analytics from Rice University in Houston, plus a degree and a master's degree in Statistics.



Argus aromatics experts



Lee Toong Shien Senior Market Reporter

Toong Shien is a senior reporter based in Singapore who is responsible for ethylene, propylene and toluene markets in Asia. He joined Argus in 2018 where his focus back then was octane boosters such as toluene, solvent xylenes and MTBE, before taking more responsibilities for other market coverages including olefins. Prior to that, Toong Shien worked as a relationship manager in the banking and finance sector. He graduated from National University of Singapore as a Bachelor of Science majoring in statistics.



Alicia Goh Market Reporter

Alicia is based in Singapore and is responsible for paraxylene and isomer-grade mixed xylene in the Petrochemicals team. Prior to Argus Media, Alicia worked for international trading firms as physical trades operator and has more than 10 years' experience in petroleum and petrochemical operations. She has an extensive network across the supply chains and is fluent in English and Mandarin.



Jacky Wang Senior Petrochemical Analyst

Jacky Wang is a Senior Petrochemical Analyst, based in Shanghai. He is a member of the aromatics team and mainly covers the Asian polyester chain markets. He has extensive experience in PTA, PET production and trading. Before joining Argus, Jacky worked for international trading firms and petrochemical producers, leading petrochemical product sales and marketing. He has more than 10 years of experience working with the polyester chain and has a deep understanding of Chinese and Indian markets.



Qamreen Parker Editor, European Toluene & Xylenes

Qamreen Parker joined Argus in early 2023 and is the Editor covering the European Toluene and Xylenes markets. She contributes to benchmark spot price assessments, as well as price forecasts and supply and demand analytics for the Argus Toluene and Xylenes service. Qamreen has more than 5 years of experience covering petrochemical markets, with a specialism in the polyester value chain. She holds a Masters of Chemistry degree from Warwick University and a PhD from University College London.



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