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# Argus Toluene, Xylenes and Isomers / PET

Formerly Argus DeWitt Toluene, Xylenes and Isomers / PET

Issue 23-1 Friday 6 January 2023

## HIGHLIGHTS

### Americas

- Gasoline demand, refinery utilization (92.0pc to 79.7pc) down.
- US gasoline demand decreased by 1.813mn/d to 7.514mn b/d while inventories decreased by 0.3mn bl and at 222.7mn bl.
- Crude inventory increased 1.7mn bl (0.4pc) to 420.6mn bl, up from 419.0mn bl.
- Toluene decreased by 9.6pc and at 315.0¢/USG.
- MX prices decreased 13.5¢/USG (3.8pc) to 342.5¢/USG.
- OX-MX spread wavering in the range of 16¢/lb to 23¢/lb in last four weeks, amid declining MX prices.

### Europe

- North Sea Dated crude fell on concerns over the global economy; Naphtha margins rose to narrowest since May; Gasoline supported by transatlantic export interest.
- Toluene and MX prices eased as January gasoline weakened.
- PX prices rose on the back of gains in Asia.
- An initial settlement for the January OX CP was reached lower.
- A fire at Indorama's Spanish PTA plant disrupted production.

## MARKET SNAPSHOTS

Americas		\$/t		
	Timing	Low	High	±
Toluene nitration grade fob USGC spot	Jan	895.92	1,117.62	-50.11
Toluene nitration grade fob USGC spot	Feb	898.95	1,123.69	-100.22
Toluene commercial grade fob USGC spot	Jan	789.62	819.99	nc
Mixed xylenes fob USGC spot	Jan	944.57	1,142.63	-47.23
Mixed xylenes fob USGC spot	Feb	978.09	1,127.39	-22.86
Paraxylene fob USGC spot	Jan	1,085.10	1,130.08	+15.10
Paraxylene fob USGC spot	Feb	1,085.10	1,130.08	+15.10
Paraxylene USGC contract	Nov		1,410.96	nc

Europe		\$/t		
	Timing	Low	High	±
Toluene TDI-grade fob NWE spot	Jan	912.50	997.50	-7.50
Toluene nitration-grade cif ARA spot	Jan	892.50	947.50	-2.50
Mixed xylenes fob NWE spot		882.50	947.50	-2.50
Paraxylene fob NWE spot		1,040.00	1,085.00	+15.00
Toluene NWE contract	Dec	977.00	977.00	nc
Paraxylene NWE contract €/t	Oct		1,270.00	nc

Asia-Pacific		\$/t		
	Timing	Price		±
Toluene fob S Korea		795.00		nc
Toluene cfr China		805.00		+40.00
Mixed xylenes isomer fob S Korea marker		834.50		+32.67
Mixed xylenes isomer cfr Taiwan marker		860.50		+32.67
Paraxylene fob S Korea marker		936.17		+5.17
Paraxylene cfr China marker		954.17		+5.17
Paraxylene cfr southeast Asia marker		944.17		+5.17
Paraxylene cfr Asia contract price	Mar	870.00		nc

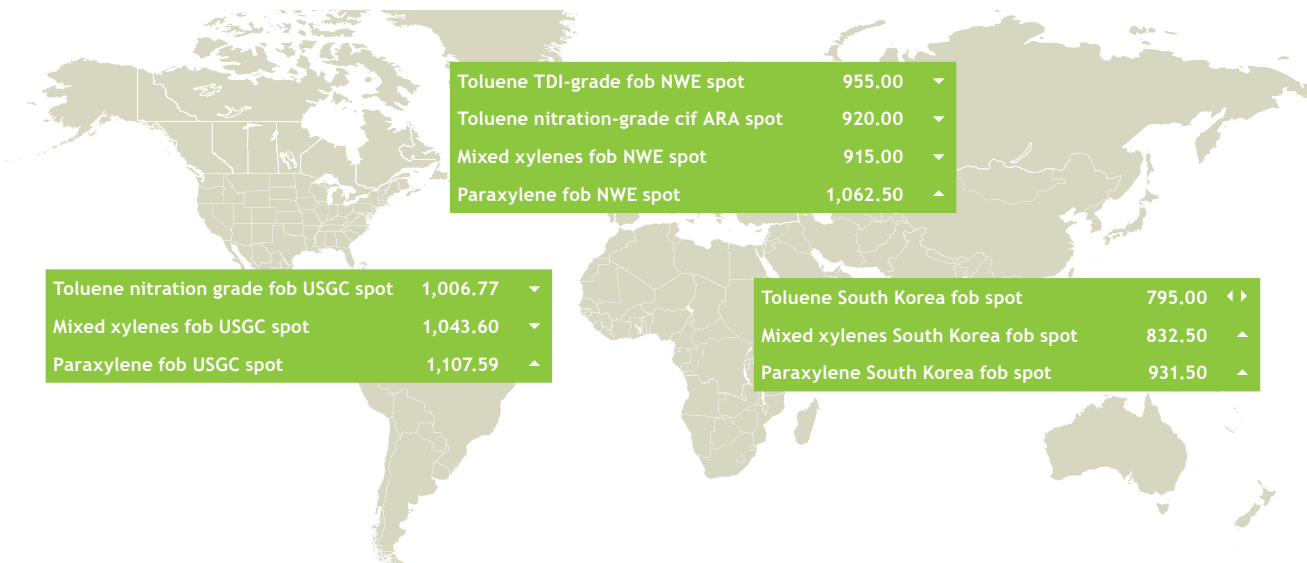
Related markets				
	Timing	Price		±
Nymex Rbob ¢/USG	na	0.00		-226.71
Nymex WTI \$/bl	na	0.00		-73.67
Ice Brent \$/bl	Mar	79.32		+0.53
Gasoline 87 M conv Colonial ¢/USG		0.00		-227.71
Gasoline 93 V conv Colonial ¢/USG		0.00		-253.46
Gasoline 83.7 Rbob Colonial ¢/USG		0.00		-220.59
Gasoline 91.3 Rbob Colonial ¢/USG		0.00		-243.71

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GLOBAL PRICES

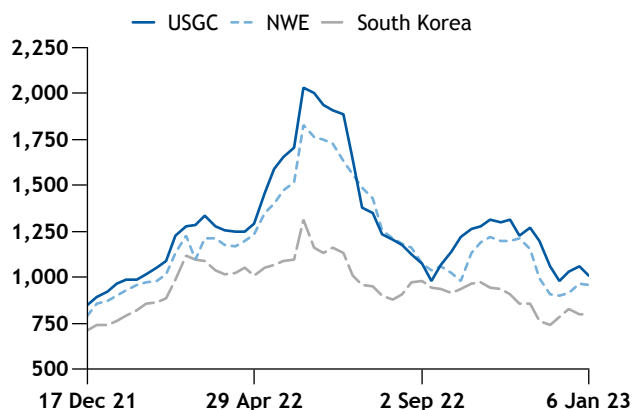
\$/t



Alternative values		
	€/USG	\$/t
<b>Americas toluene</b>		
Conventional blend value	334.33	1,015.36
Rbob blend value	312.74	949.79
HDA contract	248.10	753.49
HDA spot	243.69	740.07
TDP contract	308.47	936.83
TDP spot	306.87	931.96
STDP contract	348.12	1,057.24
STDP spot	310.57	943.19
<b>Americas mixed xylenes</b>		
Conventional blend value	351.52	1,071.08
Rbob blend value	325.02	990.34
<b>Europe toluene</b>		
Blend value	274.10	832.44

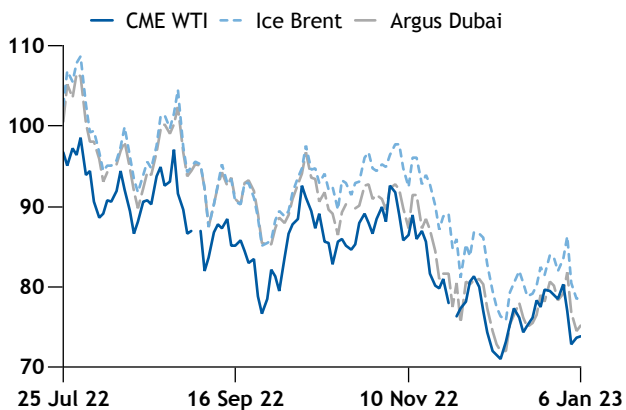
Global toluene prices

\$/t



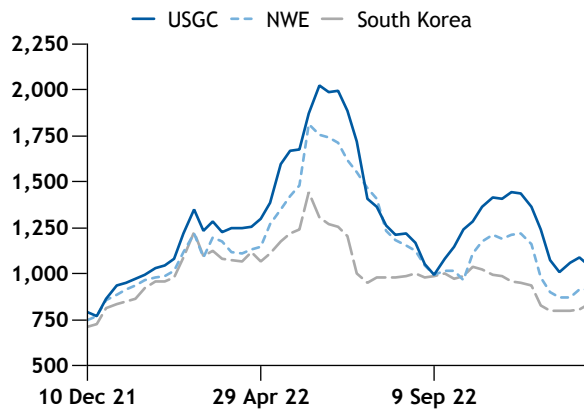
Global crude prices

\$/bl



Global mixed xylenes prices

\$/t



## AMERICAS

### Crude and gasoline

US gasoline demand decreased by 1.813mn b/d (19.4pc) to 7.514mn b/d while inventories decreased by 0.3mn bl (0.2pc) to 222.7mn bl.

Crude inventory increased 1.7mn bl (0.4pc) to 420.6mn bl, up from 419.0mn bl.

Rbob gasoline futures settled down 9.0pc over the week, down 21.87¢/USG and yesterday's close was at 220.585¢/USG. Further along the forward curve, next month gasoline futures decreased 8.3pc to 227.32¢/USG this week, and March gasoline futures decreased 1.5pc to 244.160¢/USG. Regular gasoline at the Colonial pipeline was at 227.710¢/USG, down 24.245¢/USG (9.6pc) from the week ending 30 December.

The regrade for conventional gasoline increased 9¢/USG to 25¢/USG. The regrade for Rbob was unchanged at 23¢/USG from the week ending 30 December.

In blendstocks, reformate increased by 0.380¢/USG (0.1pc) this week to 286.710¢/USG. Toluene Rbob blend value decreased by 46.040¢/USG (12.8pc) to 313.650¢/USG, and MX Rbob blend values decreased by 45.90¢/USG (12.3pc) to 325.990¢/USG. Alkylate decreased 3.12¢/USG (1.2pc) over the week to 266.710¢/USG. Heavy naphtha decreased by 15.120¢/USG (7.9pc) week-over-week to 176.710¢/USG. Raffinate decreased this week by 10.120¢/USG (5.2pc) to 183.710¢/USG on 5 January.

On hydrocarbon supply and processing, total US crude inventories, including SPR, fell by a modest 1.05mn bl since last week's report. Total inventory, excluding SPR, rose by 1.7mn

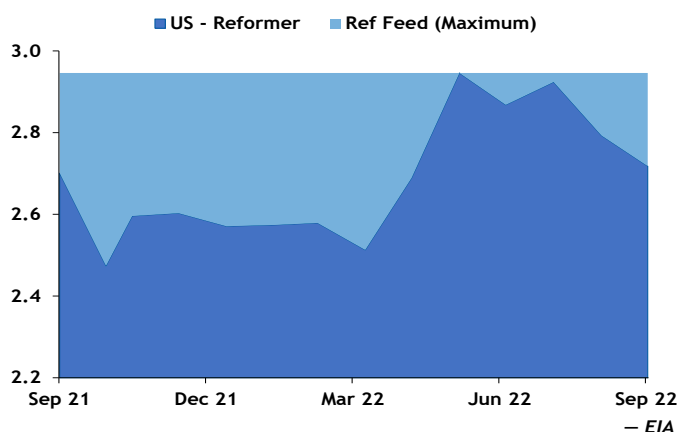
Americas physical market weekly prices				
	Timing	Low	High	±
<b>Toluene ¢/USG</b>				
Nitration grade USGC fob spot	Jan	295.00	368.00	-16.50
Nitration grade USGC fob spot	Feb	296.00	370.00	-33.00
Commercial grade USGC fob spot	Jan	260.00	270.00	nc
TDI grade contract	Dec	328.20	378.40	-69.35
<b>Mixed xylenes ¢/USG</b>				
USGC fob spot	Jan	310.00	375.00	-15.50
USGC fob spot	Feb	321.00	370.00	-7.50
<b>Paraxylene ¢/lb</b>				
USGC fob spot	Jan	49.22	51.26	+0.69
USGC fob spot	Feb	49.22	51.26	+0.69
USGC contract	Nov		64	nc
<b>Orthoxylene ¢/lb</b>				
USGC contract	Dec		60	nc
<b>Related assessments ¢/lb</b>				
PA molten contract	Jan	80.50	87.50	-9.00
PTA USGC contract cfr	Nov		60.87	nc

Americas physical market monthly averages ¢/USG			
	Timing	Average	±
<b>Toluene</b>			
Nitration grade USGC fob spot	Nov	407.75	
	Dec	339.75	
	Jan*	331.5	-8.25
<b>Mixed xylenes</b>			
USGC fob spot	Nov	439.38	
	Dec	347.75	
	Jan*	342.5	-5.25

\*MTD until week of settlement

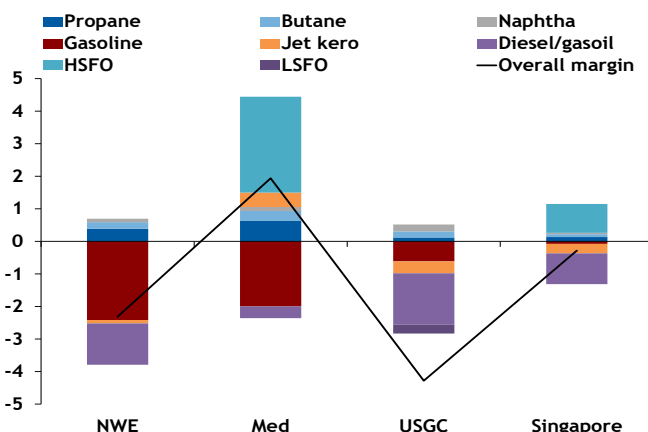
US Catalytic reformer feed input

mn b/d



Yield-weighted cracks, Dec 2022

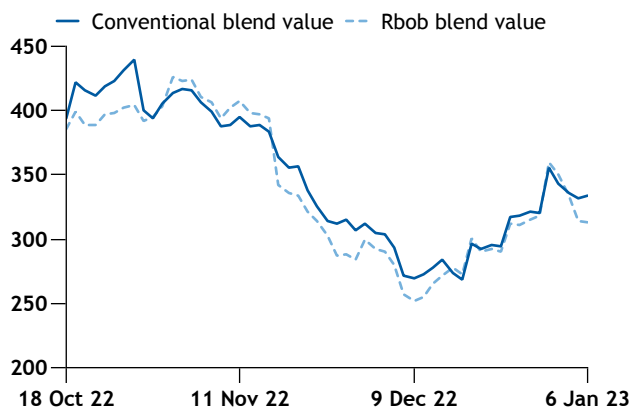
\$/bl



AMERICAS

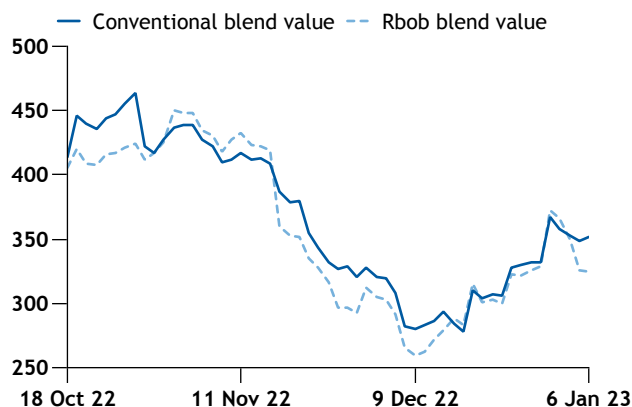
Toluene blend values

€/US\$



Mixed xylenes blend values

€/US\$



bl to just over 420.50mn bl. Despite the recent increases, inventories remain at the low end of the five-year range and at parity with year-ago levels. US domestic net crude supply contracted this week as production rose 0.1mn b/d to 12.1mn b/d, but imports fell 0.54mn b/d to 5.7mn b/d and exports rose 0.74mn bl to 4.2mn b/d. On refining operations, runs decreased by 2.24mn b/d from last week to 14.34mn b/d, with average utilization 12 percentage points lower at 79.4pc. Refinery feed volume was way below the lows of the five-year range, while utilization cratered to levels not seen since the end of 2020. Throughput on the Gulf coast fell by 1.6mn b/d to 7.5mn b/d due to the winter storm, with utilization down 16.6 percentage points at 77.7pc. Midcontinent (Padd 2) throughput was also down 0.56mn bl at 3.3mn b/d, with utilization down 12.1 percentage points to 79.2pc. Average gasoline yield across the US dropped 1.2 percentage points to 52.4pc, with actual production volume down 1.7mn b/d to 8.5mn b/d. Implied US gasoline demand was reported 1.8mn b/d lower at 7.5mn b/d. Inventories fell 0.3mn bl to 222.7mn bl. Inventory cover was higher at 29.7 days of use at current consumption levels. Absolute inventory levels have faded over recent weeks from the middle of the five year range down to the lows. On the Gulf coast, gasoline inventories moved sharply lower, with absolute levels just over 80mn bl. This inventory level is now back at the low end of what is typical for this time of year. Nationwide, gasoline component inventories moved slightly lower but continue to be mid-pack versus the five-year seasonal range.

On the Gulf coast however, component inventories stepped sharply lower but again are close to the middle of the seasonal range. Diesel inventories fell slightly again this week, while jet inventories moved sharply lower. Fuel oil inventories also moved lower this week and remain lean. On costs across the hydrocarbon complex, oil prices have had an unsteady start to the year, with weak macro-economic indicators and surging Covid-19 cases in China weighing on sentiment. Continued use of interest rates to curb inflation also underpinned concerns for oil demand. Specifically on US crude, the front-month WTI (Nymex) benchmark traded mostly higher over the holidays but then lost its footing and ended up pretty much where we left off in mid-December. From the last close at \$77.28/bl on December 15, prices dipped below \$75 before steadily increasing and breaking above \$80 right before new year. Since then some macro-economic weakness has afflicted the markets. The contract ended the reporting week to Thursday at \$73.67/bl, down \$3.61/bl from our last report. Cash market prices (WTI, Houston) started out a little lower compared to the futures markets but moved into pretty close alignment going into the holidays. After closing out our last full report at \$76.735/bl, prices moved slightly lower to \$75, before rising steadily as we approached the holidays. Prices stabilized around \$80.60/bl just before Christmas, before rising to end the year at close to \$80.75/bl. Since then, prices have succumbed to some pressure, reflecting a net decrease of \$2.735/bl for the multi-week period since our last report.

## AMERICAS

### Toluene

Prices decreased by 9.6pc and to 315.0¢/USG.

Holiday season reduced transportation fuel demand amid harsh weather conditions, reduced refinery operating rates amid a winter freeze and lukewarm economic activity in Europe all indicating weak demand and short supply, resulted in wavering aromatics prices. US gasoline demand and supplies fell on lower operating rates, the lowest seen since the winter freeze in 2021. The demand is expected to revert back quickly, however supply will take an additional three to four weeks, resulting in higher aromatics prices for the coming three to four weeks. Flaring of aromatics prices is not expected as happened during the 2021 winter freeze because of lower winter gasoline demand. However fuel prices will underpin gasoline prices.

Toluene prices decreased by 9.6pc to 315.0¢/USG amid reduced operating rates of conversion unit's demand. Bids were in the range of 325¢/USG to 315¢/USG. The commercial grade toluene (CGT) assessment was left in the range of 260.0¢/USG to 270.0¢/USG as discussion pegged in the range of 30¢/USG to 40¢/USG to Nymex Rbob.

Toluene prices has negative margins for STDP, TDP and HDA amid higher feedstock prices. Reformate increased by 0.380¢/USG (0.1pc) this week while spot prices for benzene decreased by 4.8pc to 304.5¢/USG for the week ending 6 January.

In the chemical sector, margins at selective toluene disproportionation (STDP) units in the last week continue to be negative. Selective toluene disproportionation (STDP) unit margins wavered this week from -68¢/USG to -51.3¢/USG on a spot basis for 6 January, justifying running STDP units at lower operating levels. The average STDP margins continue negative at -61¢/USG this week on higher feedstock prices.

Toluene blend values decreased by 12.8pc in Rbob to 313.650¢/USG, trending gasoline prices. Toluene conventional blend values decreased 6.7pc to 332.010¢/USG. Benzene-NGT price differential is estimated at -14¢/USG. The NGT-MX5211 price spread is at -27¢/USG in the week of 6 January.

The toluene arbitrage between the US Gulf coast and Europe increased averaging about \$60/t. US refinery lower operating rates this week amid high gasoline inventory levels will underpin higher price pressure in the market.

### Mixed xylenes

Prices decreased 13.5¢/USG (3.8pc) to 342.5¢/USG.

MX prices declined further this week amid demand weakness and higher inventory levels. Mixed xylenes (MX) spot prices decreased 13.5¢/USG (3.8pc) to 342.5¢/USG amid demand weakness. Bids were in the range of 342¢/USG to 355¢/USG for the week. MX5211 and MX 843 spread decreased 49¢/USG to 30¢/USG amid declining blend values despite tight MX supply.

The arbitrage between the US and Asia increased to \$209/t from \$155/t on 6 January. The Europe arbitrage is at \$152/t, up from \$52/t since last week, amid tight supply in the US.

### Orthoxylene

The OX-MX spread has been wavering in the range of 16¢/lb to 23¢/lb in last four weeks, amid declining MX prices.

The OX-MX price spread is at 16¢/lb and has been in the range of 16¢/lb to 23¢/lb in the last four weeks. The OX-MX spread has come down now and should stay in the range of 0-10¢/lb amid MX prices settling at lower price levels. The OX-naphtha price spread is stable in the range of 30¢/lb to 32¢/lb in the last few weeks amid stable OX and naphtha prices.

### Paraxylene

Reformate - PX spread decreased \$12/t, trending reformate prices.

US reformate prices steadily increased from \$-171/t to \$-103/t amid increasing reformate prices and steady PX prices despite declining crude values in the recent weeks. Reformate prices are supported from reduced supply after refinery operating rates dropped below 80pc due to freezing conditions in almost 48 US states. PX prices are not supported much as PET/PTA plants also reduced rates or stopped production during the winter freeze last week. Asia PX prices were in the range of \$931/t to \$949/t, while Europe PX prices were at \$1,060/t.

### PTA

Lower PTA/PX prices to offset operating rates.

PTA-PX spreads decreased from \$125/t to 117/t amid decreasing PTA prices and softening freight rates. The PTA -PX spread will stay near \$100/t in the US in the coming weeks as freight is settling down and economic activity is expected to improve on better-than-expected GDP growth news. Global PTA operating rates are expected to trend downward as newer capacity is still getting added in China.

## EUROPE

## Crude and naphtha

North Sea Dated crude dropped to \$75.41/bl on 4 January, its lowest since early December, over concerns about the slowing global economy. The IMF expects one-third of the global economy to be in recession, IMF managing director Kristalina Georgieva said in an interview with CBS on 1 January. The three big economies – the US, Europe and China – have been experiencing weakening economic activity. Rising numbers of Covid-19 cases in China also sparked further concerns over the Chinese demand outlook. But prices rose back above \$77/bl later in the week on signs of tightening Russian supply. Crude exports from Russian ports fell to 2.61mn b/d in December from about 3.13mn b/d in November, according to data from oil analytics firm Vortexa.

Naphtha rose to \$644.25/t at the start of the week, with margins to crude rising to a \$8.74/bl discount to Ice Brent, its narrowest discount since May last year. Demand from the petrochemical sector remains relatively lacklustre, leaving gasoline blenders as the main outlet. But naphtha values decreased to \$613.75/t on 5 January, under pressure from oversupply in northwest Europe.

Gasoline increased to \$799/t on 3 January, before retreating, on increased interest in the transatlantic arbitrage following higher import demand from the US and weaker freight rates. Severe cold weather in December caused shutdowns and power outages at several US refineries last month, with US gasoline stocks falling by 3.1mn bl to 223mn bl in the week to 23 December.

The euro weakened against the US dollar, ending the week at \$1.05:€1.

## Europe physical market weekly prices

	Timing	Low	High	±
Toluene TDI-grade fob NWE spot \$/t	Jan	912.50	997.50	-7.50
Toluene nitration-grade cif ARA spot \$/t	Jan	892.50	947.50	-2.50
Toluene Rotterdam contract \$/t	Dec	977.00	977.00	nc
Mixed xylenes fob Rotterdam spot \$/t		882.50	947.50	-2.50
Paraxylene fob NWE spot \$/t		1,040.00	1,085.00	+15.00
Paraxylene NWE contract €/t	Oct		1,270.00	nc
Orthoxylene fob NWE spot \$/t		1,250.00	1,350.00	-50.00
Orthoxylene NWE contract €/t	Dec		1,540.00	nc
PA liquid contract €/t	Dec	1,835.00	1,855.00	nc
DMT NWE del contract €/t	Oct	1,135.00	1,165.00	nc
PTA NWE del contract €/t	Oct	990.00	1,005.00	nc
MEG cfr Europe contract €/t	Nov	870.00	870.00	nc

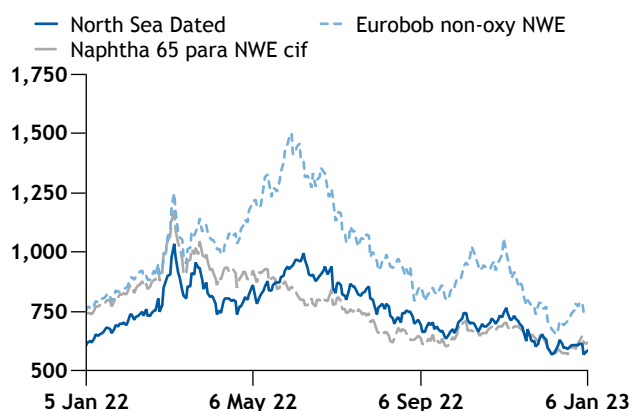
## Toluene

Toluene prices eased as the week progressed following declines in the gasoline market.

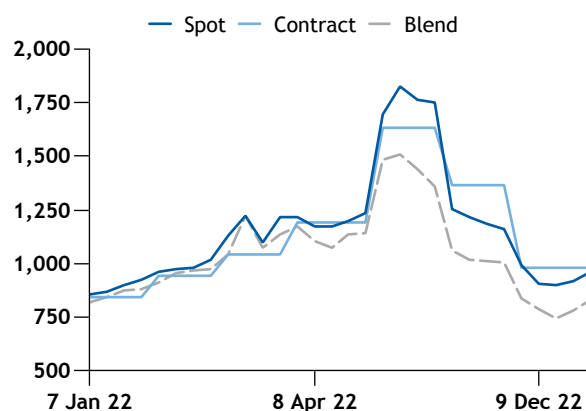
Negotiations for the January toluene contract price began this week, but a settlement has yet to be confirmed and reported. A January settlement is looking increasingly unlikely, with at least one party withdrawing from negotiations this year.

Spot TDI-grade material was discussed at a \$190-220/t premium to front-month gasoline swaps, with a January cargo changing hands at a \$210/t premium early in the week. Chemical demand remains relatively lacklustre as conversion margins are well below breakeven, while production issues at downstream German TDI plants are continuing.

## North Sea Dated, Eurobob and naphtha barge \$/t



## NWE Toluene contract, spot and blend \$/t



## EUROPE

Interest has come mainly from producers in recent sessions as they look to cover their contractual obligations. Export demand also supported European prices last month, but a sharp fall in US values at the start of this year has made the transatlantic arbitrage route less attractive this month. The arbitrage was open through most of December with multiple cargoes fixed for export.

Falling gas and energy costs across Europe are starting to help producer margins and could begin to entice some to increase extraction rates. Dutch TTF day-ahead natural gas fell to €62.40/MWh on 4 January, its lowest in two months. The forward curve has also flattened, with quarter-ahead and year-ahead values close to parity and their lowest since February and April, respectively. But gas prices remain well above historical averages, and some of the recent declines have been offset by fuel switching over the past year.

There are tentative signs that falling gas and energy costs will encourage some TDI producers to ramp up rates later this month, which could begin to support domestic toluene demand.

Refineries continue to operate at above 80pc of capacity despite easing margins for middle distillates in December. Diesel and gasoil stockpiles are being rebuilt ahead of the EU's 5 February ban on Russia for these products, with prices expected to spike as the start of sanctions approaches. Europe relies on Russia for about half of its diesel and gasoil imports, about a tenth of overall consumption. Jet fuel demand in Europe has slowed, enabling supply to build up, but confidence in air passenger demand will allow demand to pick up as the month progressed.

Germany's 226,000 b/d Schwedt refinery is operating at only 55pc of capacity after the country ended pipeline imports of Russian crude at the start of this year. The refinery, in the eastern part of Germany, is receiving crude through the port of Rostock, but not enough to keep running at capacity. The pipeline between Rostock and Schwedt is fully booked in January, according to Germany's Ministry for Economic Affairs and Climate Action. And the government wants to increase its capacity by 10pc later this year. The refinery has the capacity to produce 52,000 t/yr of toluene and 130,000 t/yr of mixed xylenes from reformate.

Cracker output remains heavily reduced, although there are reasons to believe that December marked the low for the market in terms of demand and operating rates for crack-

ers and derivative units. Destocking pressures looked to have eased by the end of December but cracker operators will continue to manage operating rates, with demand visibility remaining limited and short term. No new cracker problems emerged during the holidays.

Demand from the gasoline pool has held relatively steady, with the gasoline-naphtha spread holding at above \$100/t. Blending interest for toluene was at a \$160-180/t premium to January gasoline swaps, while light 99 Ron reformate was slightly below a \$100/t premium. A reformate cargo was exported from Portugal in late December, arriving in northwest Europe at the start of this year.

Interest in building octane stocks ahead of the peak summer season has yet to significantly materialise, with the gasoline market being backwardated through the first quarter. This could tighten the octane market later this year if stock levels are kept relatively low.

### Mixed xylenes

MX declined as the week progressed as gasoline weakened.

The gasoline pool provided a floor to discussions, with spot product at a \$160-190/t premium to front-month gasoline swaps. Demand in the distribution segment has held relatively steady into the new year, but isomerisation demand remains muted, with downstream PX and OX units running at reduced rates.

There has been some interest in exports to the US for higher-quality material with a lower non-aromatics content. But so far, demand along the route has come mainly from producers that have been reluctant to sell to the European domestic market.

### Orthoxylene

An initial settlement for the January OX contract price was agreed at a triple-digit discount to December. Falling feedstock and production costs, along with continued weak downstream demand, weighed on discussions. A full settlement has yet to be reached pending further confirmation.

A 60,000 t/yr OX unit in Germany is expected to be down for most of this year because of economic reasons. But the unit could restart and provide incremental volumes later this year if production margins improve significantly. This will probably add to European tightness following the removal of Russian imports over the past year. Some producers became

## EUROPE

increasingly reliant on import volumes to meet their domestic contractual volumes because of weak margins and low operating rates through most of 2022.

Cargoes from South Korea and China are still arriving in Europe, while some Indian cargoes are expected to arrive as well. But rising domestic demand in India and China could weigh on their available volumes for export later this year.

### Phthalic anhydride

PA demand remains low, with operating rates having fallen across most of Europe towards the end of last year. Steep falls in feedstock OX in January will come as a relief to PA producers that will be hoping the declines will spur some kind of recovery in downstream demand.

### Paraxylene

PX prices rose this week, supported by gains in the Asian market.

The market is relatively balanced, with production cutbacks and shutdowns offset by low downstream demand. A 140,000 t/yr German PX unit is expected to be down for most of this year as poor production economics throughout most of 2022 have forced the unit off line.

A fire at Indorama’s 325,000 t/yr PTA plant in Spain on 1 January has forced the shutdown of the unit for at least a week, weighing on demand for feedstock PX.

Europe continues to attract material from India, with 7,000t arriving in the EU15 in October. But this was down sig-

nificantly from the 36,400t imports a month earlier. Sharp falls in the Asian market in the middle of last year made the export route to Europe more attractive before prices in the region stabilised. Planned maintenance in September and October at one of Reliance’s CDU’ in Jamnagar also reduced available PX and OX for export.

Reduced imports from Asia in October were offset by increased imports from the Middle East, which rose to 44,500t from 18,300t in September. This kept the European market balanced-to-long despite domestic production cutbacks because of weak-to-negative margins. Weak downstream PTA and PET operating rates, particularly through the second half of last year, also capped European demand for PX.

### PTA

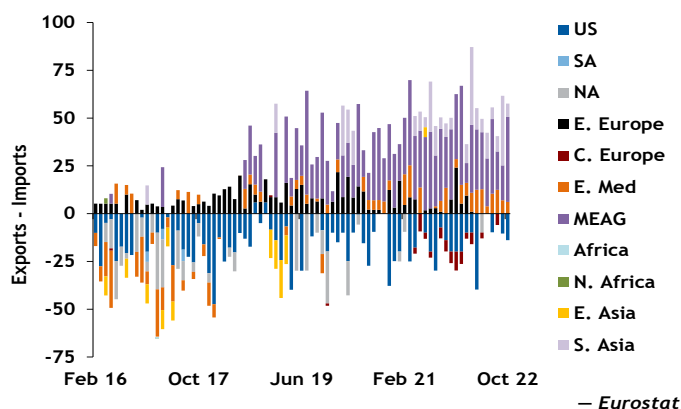
A fire broke out at Indorama’s 325,000 t/yr PTA plant in San Roque, Spain, on 1 January, causing “minor disruptions” as the company assesses repairs.

The fire broke out at about 10:00 local time (09:00 GMT) and was brought under control soon afterwards. There were no health or environmental impacts to employees or the community.

Indorama expects to complete its safety protocols within a week and sequentially restart the 203,000 t/yr polyethylene terephthalate (PET), 220,000 t/yr purified isophthalic acid (PIA) and PTA units and reach full capacity in January.

The impact of the shutdown has been fairly limited as downstream units were also brought off line at the same time.

EU15 monthly paraxylene trade data '000t



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## ASIA-PACIFIC

## Crude and naphtha

Crude prices fell as concerns mounted over a global recession, with China's struggle to combat Covid-19 adding to bearish sentiment.

More countries have imposed or are considering Covid-19 measures on travelers from China, moves that could curb a recovery in Chinese travel demand and that the International Air Transport Association (IATA) has characterised as "extremely disappointing". The US, UK, Japan, India and other European nations are rolling out fresh Covid-19 testing requirements for visitors from China, ahead of the country's reopening on 8 January.

Dubai swaps dropped to \$74.40/bl on 6 January, down by \$6.50/bl compared with 3 January.

Naphtha margins rose to around \$44/t given cautious hope of petrochemical demand recovery after China lifts more Covid-19 restrictions.

South Korea's LG Chem sought more spot cargoes for first-half February delivery. Naphtha prices ended the week at \$638/t, down by \$27.25/t from 3 January.

## Toluene

Toluene prices in the China market increased this week as demand recovered on the back of improved blending activities as a result of the new year holiday.

But market participants expect demand to dwindle over the next two weeks as transportation will soon come to a halt ahead of the Chinese lunar new year holiday.

Freight rates					\$/t
	Size t	Low	High	Mid	±
<b>Toluene/MX</b>					
South Korea-China	2,000-3,000	44	49	47	nc
Southeast Asia-China	2,000-3,000	74	79	77	nc
Southeast Asia-India	2,000-3,000	85	95	90	nc
<b>PX</b>					
South Korea-China	5,000	37	42	40	nc
South Korea-China	10,000	30	35	33	nc
Southeast Asia-China	5,000	73	77	75	nc
Southeast Asia-China	10,000	63	67	65	nc
Mideast Gulf-China/Taiwan range	10,000	87	92	90	nc
Mideast Gulf-China/Taiwan range	15,000	83	89	86	nc
West coast India-China/Taiwan range	10,000	84	89	87	nc
West coast India-China/Taiwan range	15,000	80	85	83	nc

Asia physical market weekly prices				\$/t
	Timing	Low	High	±
<b>Toluene</b>				
S Korea fob spot		780.00	810.00	nc
China cfr spot		790.00	820.00	+40.00
E China domestic ex-tank Yn/t		6,300.00	6,450.00	+315.00
Southeast Asia cfr spot		830.00	850.00	+35.00
India cfr spot		910.00	945.00	-7.50
India domestic ex-tank Rs/kg		79.00	81.00	-2.50
<b>Mixed xylenes</b>				
Isomer S Korea fob spot	Feb	820.00	845.00	+29.00
Isomer S Korea fob spot	Mar	820.00	845.00	+22.00
Isomer S Korea fob marker			834.50	+32.67
Isomer Taiwan cfr spot	Feb	846.00	871.00	+29.00
Isomer Taiwan cfr spot	Mar	846.00	871.00	+22.00
Isomer Taiwan cfr marker			860.50	+32.67
Solvent S Korea fob spot		760.00	780.00	nc
Solvent China cfr spot		780.00	800.00	nc
<b>Paraxylene</b>				
S Korea fob spot	Feb	915.00	948.00	+2.50
S Korea fob spot	Mar	924.00	950.00	+8.00
S Korea fob marker			936.17	+5.17
Taiwan cfr spot	Feb	933.00	966.00	+2.50
Taiwan cfr spot	Mar	942.00	968.00	+8.00
Taiwan cfr marker			954.17	+5.17
China cfr spot	Feb	933.00	966.00	+2.50
China cfr spot	Mar	942.00	968.00	+8.00
China cfr marker			954.17	+5.17
Southeast Asia cfr spot	Feb	923.00	956.00	+2.50
Southeast Asia cfr spot	Mar	932.00	958.00	+8.00
Southeast Asia cfr marker			944.17	+5.17
Asia cfr contract price	Mar		870.00	nc
Asia Argus contract price	Mar		870.00	nc
<b>Orthoxylene</b>				
S Korea fob spot		860.00	890.00	+30.00
Southeast Asia cfr spot		880.00	920.00	+30.00
cfr China		880.00	920.00	+30.00
cfr India		910.00	950.00	+30.00
PA flakes cfr northeast Asia		1,000.00	1,050.00	nc
PA flakes cfr southeast Asia spot		1,000.00	1,050.00	nc
<b>Fibre intermediates</b>				
PTA fob northeast Asia		705.00	745.00	+5.00
PTA China domestic marker			5,430.00	-118.33
MEG fob S Korea spot		470.00	475.00	+2.50
MEG cfr China spot		485.00	490.00	+2.50
MEG contract price	Jan	820.00	850.00	+20.00

## ASIA-PACIFIC

Ex-tank prices in east China jumped to 6,300-6,450 yuan/t, up by Yn315/t compared with last week or equivalent to \$803-822/t on an import parity basis. There were no import discussions in the cfr China market. Prices were adjusted higher to \$790-820/t to reflect gains in domestic ex-tank prices.

Buyers and sellers were still absent this week from the fob South Korea market with no bids or offers seen. Prices were assessed stable at \$780-810/t this week.

In southeast Asia, buying ideas were quoted at \$830-850/t for January arrivals on a cfr southeast Asia basis. But there were limited offers in the market, with cfr southeast Asia prices assessed higher at \$830-850/t on the back of higher buying ideas.

Demand in India weakened this week. Domestic ex-tank prices at the ports of Kandla and Mumbai dropped to 79-81 rupees/kg, down by Rs2.50/kg compared with last week. Buyers dropped their buying premiums this week because of weaker sentiment, to \$130-135/t against fob South Korea assessments for February arrivals, down by \$5-10/t compared with two weeks earlier. The cfr India prices were adjusted lower to \$910-945/t to reflect weaker sentiment seen this week.

### Mixed xylenes

Isomer-grade mixed xylene (Iso MX) prices extended gains by \$30/t this week compared to 30 December 2022, on the back of firmer buying interests for prompt February-loading cargoes.

The PX-MX margin narrowed slightly by \$23/t from the previous week to \$120/t.

Buyers emerged throughout the week in the spot market, with strong bid interests for February loading fob South Korea

cargoes between \$780-\$844/t. Offers were seen only by 4 January and in the range of \$820-830/t fob South Korea, with the sole February loading cargo being concluded at \$820/t fob South Korea. The week ended with muted discussions for March.

Domestic prices in east China fell by 100 yuan/t from 3 January to Yn6,900/t for prompt cargoes, or an import parity equivalent of \$868/t.

Inventory levels in east China sharply increased by 16,800t from last week to a 53,800t as a result of waning demand.

South Korean producer GS Caltex will shut a reformer and a TDP unit in March for maintenance, leading to a fall in MX output.

Solvent-grade MX (SMX) prices were assessed stable given limited discussions.

A sole offer was tabled on 6 December at \$790/t on a fob South Korea basis for February loading, but failed to attract any buyers. The fob South Korea prices were assessed steady at \$760-780/t.

There were no discussions in the cfr China market. Prices were rolled over from the previous session.

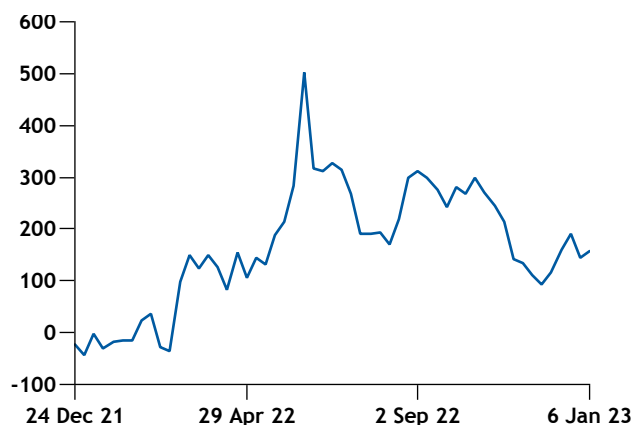
Demand continued to stay subdued in southeast Asia. Buyers in the region were not looking to procure any spot cargoes for the time being. Buying ideas were quoted at \$810-830/t cfr southeast Asia this week, with no offers.

### Orthoxylene

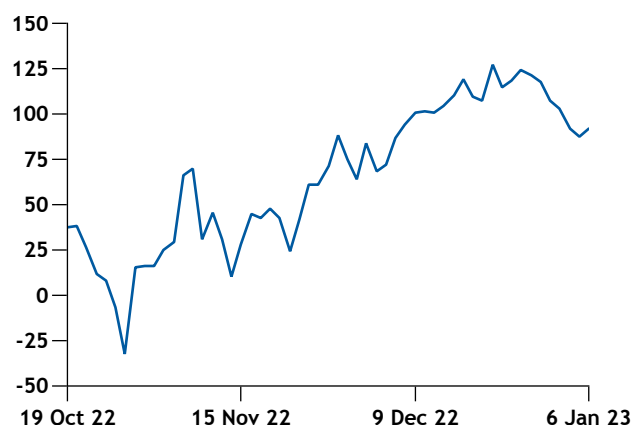
Asia-Pacific orthoxylene (OX) prices were firmer during the week to 6 January because of mild demand recovery in the Chinese market ahead of the lunar new year holidays.

Some phthalic anhydride (PA) producers were looking to

Toluene premium to cfr Japan naphtha \$/t



cfr Taiwan paraxylene premium to MX \$/t



## ASIA-PACIFIC

restock ahead of the holidays in anticipation that downstream demand would improve in February. Buying indications for end January/early February cfr Zhangjiagang arrival were raised to \$870/t cfr, meeting selling indications pegged around \$940/t, but no deals could be confirmed by the close of business on 6 January.

Feedstock isomer-grade mixed xylenes rose by around \$30/t from the previous week to end at \$844/t fob South Korea.

### Paraxylene

Paraxylene (PX) prices in the Asia-Pacific inched up by \$14/t compared with 30 December 2022.

Interest for prompt cargoes remained tepid, while activity for March-arrival cargoes warmed slightly ahead of the Chinese lunar new year holiday. The sudden relaxation in Covid-19 curbs in China increased infection rates, and labour remains in shortage. Market participants expect demand to pick up after February.

Three trades were concluded at the start of the week after two consecutive weeks with zero deals. Mercuria sold an Asian-origin PX cargo for March arrival to SKGC Singapore at \$967/t cfr on 3 January. GS Caltex bought two March-arrival Asia cargoes at \$967/t cfr from Glencore and Hengli Petrochemical on the same day. GS Caltex bought another cargo at \$943/t cfr from TotalEnergies on 4 January. Two March-arrival Asian cargoes were concluded at \$962/t on 6 January, by Samsung C&T and OQ trading with GS Caltex and SKGC Singapore, respectively.

Yisheng Petrochemical emerged on 5 January seeking February-arrival Asian-origin cargoes at \$920/t cfr. ChinaBase

Ningbo eventually booked the bid at \$948/t cfr.

The PX-naphtha spread widened by \$22/t from 30 December 2022 to \$320/t on 6 January. The typical PX-naphtha breakeven is around \$200-\$250/t.

South Korean and Japanese producers were concluded most of their 2023 term contracts at parity.

Vietnam's Nghi Son has cut PX production after a technical issue hit the RFCC unit, forcing a shutdown from 1-10 January. PX inventory remained sufficient as production had been at near maximum capacity prior to the RFCC outage.

Japanese producer Eneos will shut its 370,000t PX unit in Mizushima for a turnaround during February-March for 60 days. South Korea's GS Caltex plans to shut its 550,000t PX Yeosu unit in March for maintenance for 50 days. Indonesia state-owned Pertamina's TPPI PX plant in Tuban will shut in early February for a turnaround for about 30-45 days.

China's Shenghong No. 2 PX unit and Petrochina's Jieyang new unit in Guangdong are expected to start up in January. Their PX unit capacities are at 2mnt/yr and 2.6mnt/yr, respectively.

### PTA

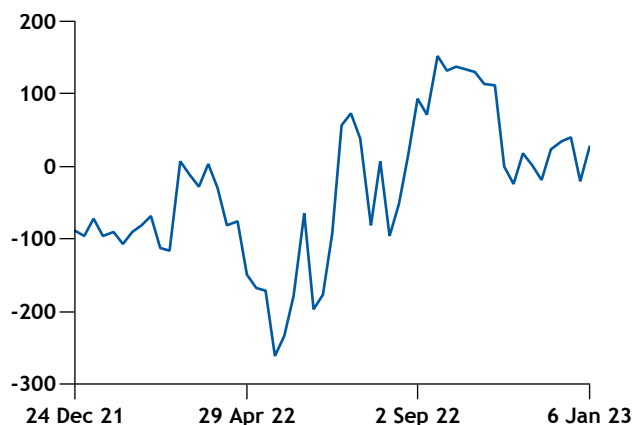
Chinese domestic PTA traded lower during 3-6 January with softer PTA futures.

Trades picked up on 3 January after the new year holiday as some consumers and trading firms made purchases. Deal prices for prompt shipments rose marginally at 5,600 yuan/t on a delivered basis before the close of trading.

But softer crude and PTA futures weighed on negotiation levels in the following trading sessions. Buyers turned cautious as they expected increasing supply as well as weak PET fiber

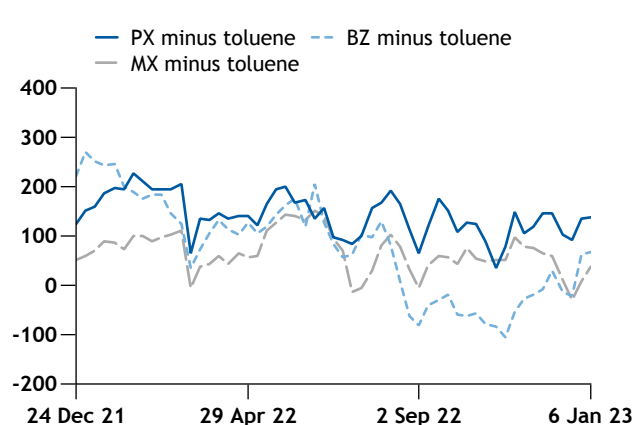
Toluene-gasoline blend value

\$/t



PX-toluene, BZ-toluene, MX-toluene spreads

\$/t



## ASIA-PACIFIC

demand to lower PTA prices in coming weeks. Deal prices for prompt shipments fell by more than Yn250/t in the second half of the week, reaching a low of Yn5,320/t on delivered basis on 6 January.

Spot premiums to the TA2305 futures contract narrowed from Yn40/t to Yn20/t during the week because of increasing supply. Meanwhile, premiums for second half January shipments fell from Yn15/t to Yn5/t.

Negotiations in the fob northeast Asia market were limited. Selling indications for late January and early February shipments were at \$745-750/t fob. But buyers remained on the market sidelines or placed notional bids at \$700-705/t. No

deals were done because of wide gaps between offers and bids.

Yisheng Petrochemical shut down a 3mn t/yr PTA unit in Ningbo on 3 January for a 14-day turnaround. But there were talks that its 2mn t/yr No.3 PTA line in Ningbo and 2.5mn t/yr production line in Dalian will resume production soon because of healthy production margins. The PTA price spread to feedstock costs widened to Yn530/t, higher than the breakeven point of Yn500/t.

Zhuhai Ineos restarted its 1.1mn t/yr No.2 PTA line on 4 January. Hengli Petrochemical restarted the 2.2mn t/yr No.2 PTA unit on 5 January.

## PET RESIN

### Americas

Prices in the range of 79-93¢/lb

PET prices have been holding in the range of 79¢/lb -93¢/lb in the US. Declining crude prices amid healthy Asia demand have kept prices in the lower range. Now deals are being completed for next year, keeping in mind the China holiday season starts at the end of January.

PET margins are still holding in the range of \$904/t to \$937/t amid lower feedstock prices. PX, PTA and MEG prices are lower in Asia.

### MEG

Prices are in the range of 34-36¢/lb.

MEG prices are rebounding now after continued weakness in prices, lackluster demand and poor margins for more than a few months now. Higher contract price settlement globally in January is implying improved price support in the coming months. MEGlobal announced its January MEG Asian contract price at \$820/t cfr Asia on 14 December, up by \$20/t from December.

Major MEG producers in the USGC are still trying to come online. The late-December freeze has impacted MEG producers severely. One of the major MEG producers, Lotte Chemicals, is under force majeure due to lingering freeze issues.

### Europe

Operating rates across Europe remain severely reduced, with average rates hovering at the 50pc level. Production issues at an upstream PTA unit in Spain have forced the downstream 203,000 t/yr PET plant off line. But the impact is expected to be limited, with a restart likely in the coming days.

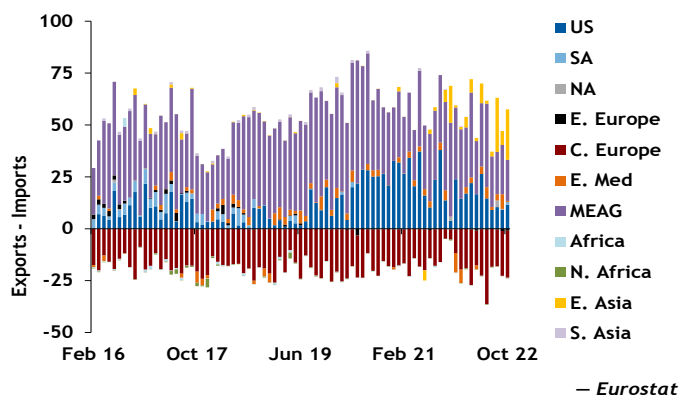
PET resin market prices			
	Timing	Low	High
<b>Americas ¢/lb</b>			
cfr US/Canada contract	Jan	79.00	91.00
cfr Mexico contract	Jan	80.00	92.00
cfr South America contract	Jan	78.00	90.00
Recycled chip cfr N. America contract	Jan	81.00	93.00
<b>Europe \$/t</b>			
cfr northern Europe contract	Oct	1,549.56	1,607.94
cfr Germany/France contract	Oct	1,554.87	1,613.25
cfr UK contract	Oct	1,586.71	1,666.31
cfr southern Europe contract	Oct	1,533.64	1,592.02
cfr eastern Europe contract	Oct	1,523.03	1,592.02
<b>Asia-Pacific \$/t</b>			
Bottle chips fob South Korea		1,010.00	1,050.00
Bottle chips fob China		910.00	920.00
PIA cfr China		1,040.00	1,080.00
PIA ex-warehouse China domestic rmb/t		8,800.00	9,500.00

The shutdown may some brief support to other producers but the overall impact on the market has been limited. The unplanned shutdown, coupled with production issues in the Netherlands in the fourth quarter last year, have had more of an impact in term of highlighting the potential for supply disruptions later in the year. Europe has become increasingly reliant on cheaper imports from Asia over the past year as domestic producers have struggled to compete on price. But any potential disruptions or delays to these shipments, particularly over the peak summer demand period, could leave European buyers stranded if there are also domestic production issues at the same time.

## PET RESIN

EU15 monthly MEG trade data

'000t



### MEG

A full settlement for the January MEG contract price has yet to be agreed, with expectations for a fall on weak downstream demand and falling energy costs.

European supply remains relatively long, with downstream PET rate cuts weighing on demand. Demand into the anti-freeze segment has also not seen a significant increase, with weather across Europe relatively mild to start the year.

Europe continues to attract imports, but volumes decreased in the fourth quarter. Imports from the US fell to less than 30,000t in October, down from 35,500 t/month in the third quarter. Product arriving from the Middle East also declined, with just 13,000t arriving in western Europe in October, down from over 21,000t a month earlier.

Imports from Asia have also been relatively limited through the second half of the year despite no anti-dumping duties in place for material sourced from the region. Rising freight rates last year coupled with delays to imports earlier in the year and long lead times have left European buyers cautious of sourcing large volumes through long supply chains. Western Europe imported an average of 3,700 t/month from Asia in July-October, down from close to 16,000 t/month in the first half of the year.

### Asia-Pacific

PET resin prices rose in the fob China market on 3 January following firmer crude futures. Chinese producers offered February shipments at \$920-930/t fob and concluded several mid-sized deals at \$915-920/t fob. Some Middle East and Southeast Asian buyers made purchases.

But sentiment weakened in the following sessions because

of softer crude and PTA futures. Offers were adjusted lower by \$5-10/t to \$915-920/t fob and met notional bids at \$900/t. Most buyers adopted a wait-and-see approach as they were waiting for lower offers because of weaker demand. Sporadic small-sized deals were done at \$910-915/t fob.

Negotiations in the Chinese domestic market picked up in the first half of the week as two beverage companies issued tenders to purchase first-quarter shipments. Around 30,000t was awarded to PET resin manufacturers at 6,850-6,900 yuan/t ex-warehouse. Prompt shipments traded at Yn7,000-7,150/t ex-warehouse during 3-4 January.

But softer feedstock prices dragged discussion levels down to Yn6,900-7,050/t ex-warehouse during 5-6 January. Transacted volumes also contracted because of weaker demand.

South Korean producers sold out January shipments in December and started to offer February shipments in the second half of the week. Selling indications were at \$1,050/t fob Busan and notional buying ideas were around \$1,000-1,010/t. No deals were done.

China Resources is restarting its 600,000 t/yr PET resin production line located in Zhuhai on 6 January. Dragon Special Resin plans to restart its 300,000 t/yr unit in Xiamen next week. But Wankai Chongqing shut one 600,000 t/yr PET resin plant early this week because of a shortage of feedstock PTA supply.

### PIA

The Chinese domestic PIA market was quiet as most PET resin consumers had made purchases in late December.

Offers to PET resin consumers were at Yn8,900-9,000/t, which met notional buying ideas below Yn8,800/t. No deals were done.

But FCFC raised offers to small buyers to Yn9,800/t, which were rejected by buyers. Trading firms made some deals with small consumers at Yn9,400-9,500/t during the week.

Negotiations on a cfr China basis were limited. Notional selling indications were adjusted higher at \$1,080/t as one producer is mulling shutting a production line on negative margins. But buyers remained on the market sidelines as they have enough feedstock. Notional buying ideas were below \$1,040/t cfr China.

### MEG

MEG trades picked up in the cfr China market as most buyers had returned from new year holidays.

## PET RESIN

Offers to sell late January and early February shipments were at \$495-500/t cfr China on 3 January, with some deals concluded at \$490/t.

Softer crude futures weighed offers down to \$490/t cfr China in the second half of the week. Several trading firms made purchases at \$485/t. They expect demand to pick up after the lunar new year holiday as China's central government has lifted Covid-19 restrictions to boost the economy.

Transactions in the Chinese domestic market were limited, as most consumers adopted a wait-and-see approach. Major PET fiber producers were had cut run rates, which curbed demand for MEG. Deal prices fell marginally from 4,020 yuan/t to Yn3,970/t ex-tank during 3-6 January, in line with softer MEG futures. Some trading firms made purchases as they expect demand to pick up from late January.

MEG inventory at east China's main ports increased by 31,000t to 933,000t. Offtake from shore tanks to factories slowed owing to lower polyester operating rates.

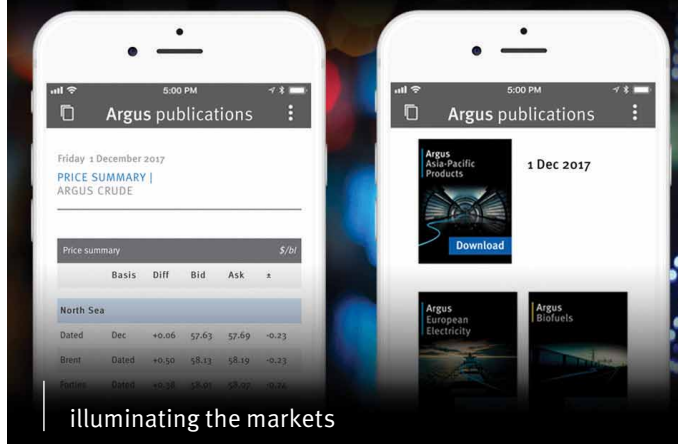
China's Sinopec Zhongke shut down its 500,000t/yr MEG line on 4 January to have a 10-day turnaround. Shenghong plans to start up its brand new No.2 900,000t/yr MEG unit in mid-January. China's syngas-based MEG operating rates rose to 55pc as several production lines restarted.

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