

Argus MTBE Outlook

Formerly Argus DeWitt MTBE Outlook



Near-term outlook

Global MTBE prices are expected to see a slight increase in the short term, but the upside will be limited as MTBE production rates are expected to increase, while the prospect of rising Covid-19 cases could slow recovery. Asian MTBE supplies are set to increase in July with the arrival of US MTBE imports and the return of MTBE units that were undergoing maintenance.

Longer-term outlook

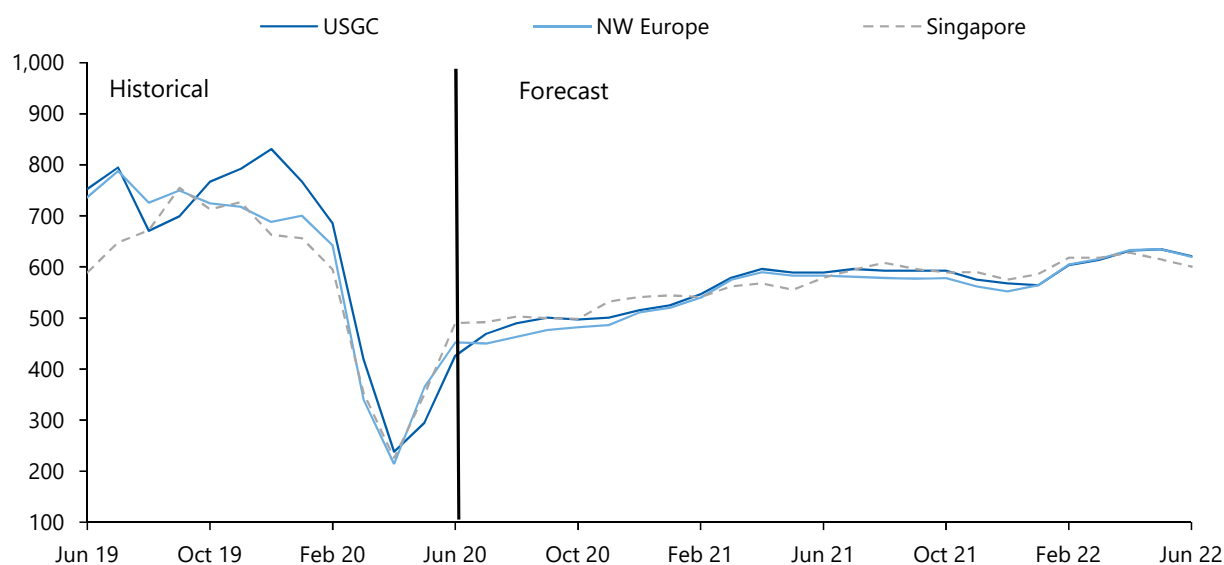
Gasoline demand is expected to recover in the longer term as the impacts from the coronavirus outbreak have significantly slowed down. But Argus does not expect prices to recover to levels from late 2019 or early 2020 in our two-year forecast period.

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Global MTBE price forecast

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Price forecast

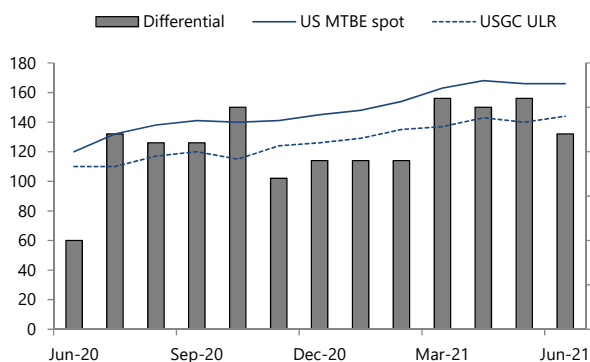
Americas													
	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21
Related markets													
WTI \$/bl	37	38	39	41	41	43	45	46	48	49	49	48	48
Natural gas Henry Hub \$/mmBtu	1.83	1.88	1.92	1.86	2.15	2.28	2.46	2.68	2.51	2.42	2.07	1.97	1.92
Butane Mt. Belvieu ¢/USG	54	55	58	63	67	70	75	77	72	70	67	62	59
Naphtha USGC ¢/USG	77	81	88	91	86	95	97	100	106	106	112	109	113
USGC regular gasoline ¢/USG	110	110	117	120	115	124	126	129	135	137	143	140	144
USGC regular gasoline \$/t	399	399	422	433	416	448	456	466	488	496	518	505	521
USGC premium gasoline ¢/USG	117	127	133	134	130	138	138	143	150	155	163	161	167
Blendstocks													
MTBE ¢/USG	120	132	138	141	140	141	145	148	154	163	168	166	166
MTBE \$/t	426	469	490	501	497	501	515	525	547	579	596	589	589
Alkylate USGC ¢/USG	124	144	149	148	145	152	156	164	172	191	173	171	190
Reformate USGC ¢/USG	128	161	165	163	167	173	165	173	187	209	191	192	201
Toluene USGC ¢/USG	137	159	168	175	177	184	185	194	199	205	209	210	220
Blend values													
MTBE blend value ¢/USG	137	175	178	176	176	185	179	189	200	209	219	220	232
Alkylate USGC blend value ¢/USG	121	131	137	141	138	149	149	154	162	163	168	166	173
Reformate USGC blend value ¢/USG	135	158	163	164	162	173	170	177	188	193	201	200	210
Toluene USGC blend value ¢/USG	152	169	173	173	172	179	175	184	194	203	214	213	225
Europe													
	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21
Related markets													
North Sea Dated \$/bl	39	40	42	43	44	46	47	48	50	51	51	50	50
Gasoline 91r NWE barge \$/t	350	357	368	381	386	412	426	433	450	479	500	490	490
Gasoline 95r NWE barge \$/t	373	377	388	396	401	427	441	448	465	494	515	505	505
Eurobob NWE barge \$/t	350	357	368	381	386	412	426	433	450	479	500	490	490
Naphtha \$/t	314	328	341	354	367	378	401	399	406	421	411	392	391
Naphtha/ULP gasoline diff \$/t	36	29	27	27	19	34	25	34	44	58	89	98	99
Blendstocks													
MTBE \$/t	452	450	463	476	482	486	511	520	540	575	590	583	583
MTBE factor \$/t	1.29	1.26	1.26	1.25	1.25	1.18	1.20	1.20	1.20	1.20	1.18	1.19	1.19
Toluene \$/t	377	424	450	472	476	500	501	539	555	562	574	579	607
Asia-Pacific													
	Jun 20	Jul 20	Aug 20	Sep 20	Oct 20	Nov 20	Dec 20	Jan 21	Feb 21	Mar 21	Apr 21	May 21	Jun 21
Related markets													
Dubai \$/bl	41	41	42	42	44	46	47	47	49	49	51	48	49
Naphtha - SEA \$/t	329	342	355	366	381	393	416	415	420	436	424	406	405
Gasoline 92r Singapore - SEA \$/t	369	384	402	417	415	443	451	461	458	476	481	470	491
Gasoline 97r Singapore - SEA \$/t	394	423	443	456	456	483	486	494	481	500	496	498	516
SEA blendstocks													
MTBE - Singapore spot \$/t	490	492	503	500	498	532	541	544	541	562	568	555	579
Toluene Asia \$/t	429	477	495	506	511	523	536	540	550	571	564	556	565

Argus Direct subscribers can download these price tables, the extended price forecast, and additional charts [here](#).

Pricing differentials

USGC MTBE vs USGC regular gasoline

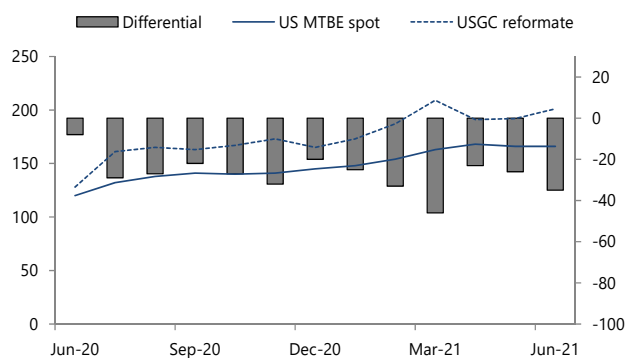
\$/USG



■ MTBE differentials to gasoline are expected recover, but will be weighed down by higher US MTBE production.

USGC MTBE vs USGC reformate

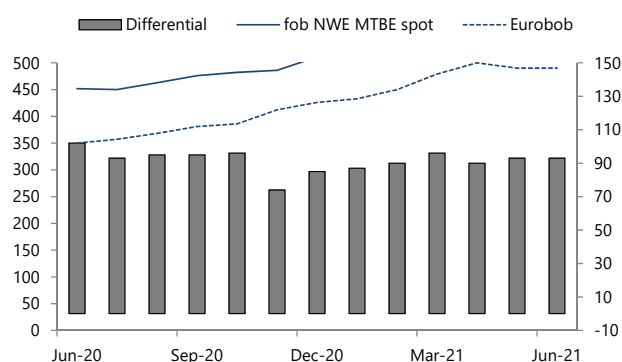
\$/USG



■ MTBE's discount to reformate is expected to increase in 3Q 2020 as US MTBE production increases.

fob NWE MTBE vs eurobob

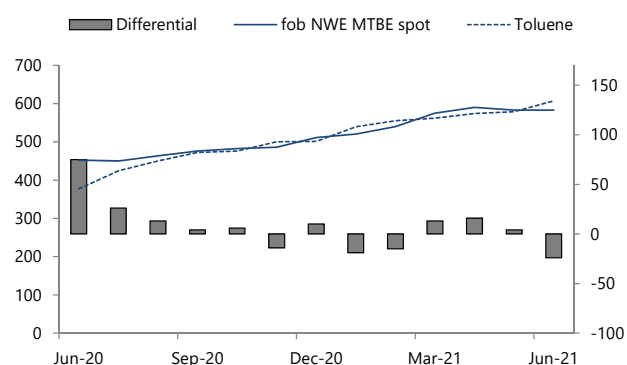
\$/t



■ European MTBE factor expected to fall as gasoline prices improve and MTBE production increases.

fob NWE MTBE vs toluene

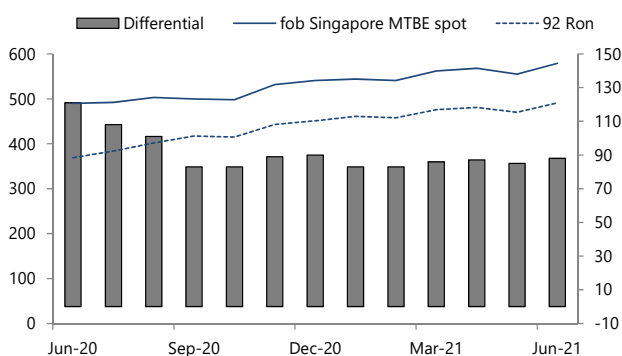
\$/t



■ MTBE prices expected to trade above toluene prices until September.

fob Singapore MTBE vs 92 RON

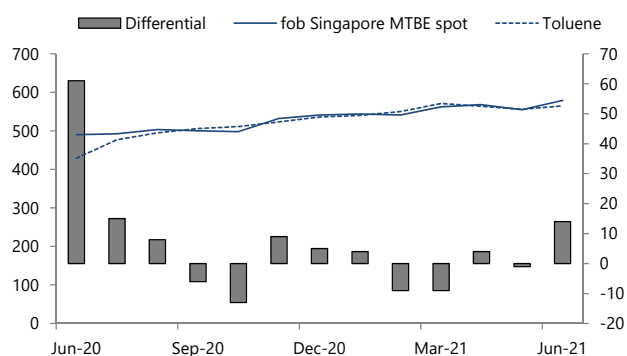
\$/t



■ MTBE's premium to gasoline is expected to narrow as supplies improve.

fob Singapore MTBE vs toluene

\$/t



■ High MTBE prices are currently favoring the use of toluene as a blendstock.

Global crude and feedstocks

Crude

The global Covid-19 pandemic continues to progress around the world, affecting South America and Russia severely while western economies begin to reopen. But the damage has been done and further damage lies ahead. The global economy will take years to recover from this pandemic, even if an effective vaccine is developed in the next 6-12 months. For the crude oil markets, it is highly probable that new historical records will be set, and depending on your perspective, the records could be good or bad. In its June report, the Paris based International Energy Agency (IEA) predicts that global crude oil demand will decline an average of 8mn b/d for 2020, an all-time record for a calendar year. After falling more than 16mn b/d in late March and early April, global demand has begun to recover. And for 2021, the IEA forecasts another record to fall, with year-over-year crude demand rising by more than 5mn b/d. With the airline industry crippled, the forecast may be optimistic.

Our price forecast for the next 24 months reflects a much stronger market view, despite some of the fundamental elements in place that would pressure prices lower. US commercial crude inventories hit record levels (more than 539mn bl) in the past two weeks, despite falling US production and slowly increasing refinery runs. The disparity between Brent/North Sea Dated (NSD) prices and Ice Brent futures which reached well over \$7/bl in May, has returned to more typical levels of less than \$1/bl. Our view is that Brent/NSD will approach \$50/bl in early 2021, predicated on discipline by crude producers and recovering demand.

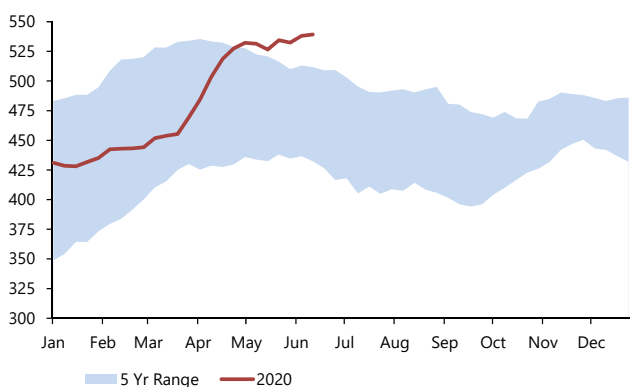
The Opec+ group did agree to extend its production cuts for at least another month (through July) at its June meeting, and further extensions may be needed to stabilize oil prices in the current range of \$35-40/bl. There are reports that some US producers are restarting oil wells now that prices have recovered. Prices are not high enough to incentivize new drilling, which typically lags behind any rise in crude markets. The latest US Energy Information Administration (EIA) data published on 17 June showed crude oil production at 10.5mn b/d, down by 600,000 b/d from the prior week and approximately 2.5mn b/d down from the February 2020 peak. With the decline of domestic production, the price of West Texas Intermediate (WTI) approached \$40/bl in the past several weeks, only to pull back and stabilize in the \$36-39/bl range. Gasoline demand continues to recover, but jet demand remains in the doldrums.

Feedstocks

Henry Hub natural gas prices for July delivery month to date have been weaker as the summer is off to a mild start and liquefied natural gas (LNG) loadings at US ports have been delayed or cancelled because of poor economics. Even with supply falling, slower economic activity has reduced demand from power generation and manufacturing, expanding inventories. For the latest reporting week, gas injections were pegged at 93 Bcf going into inventory. This placed domestic inventories for the week ending 5 June at 2.807 Tcf, above the five-year average by 421 Bcf, and higher by 748 Bcf versus year-ago levels.

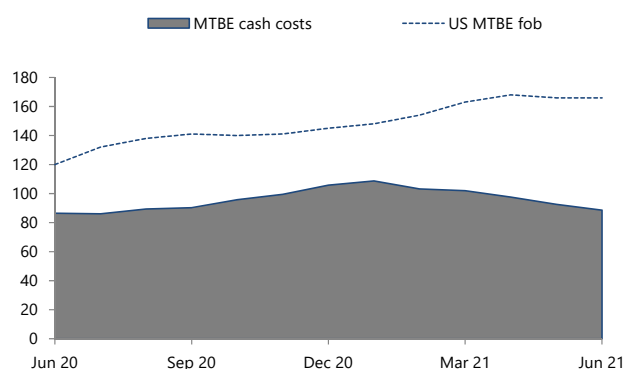
Weekly crude inventories - EIA

mn bl



US MTBE cash costs

\$/t



Supply and demand outlook — Americas

Near term

US MTBE prices have doubled since reaching a low of 60¢/USG back in early April. MTBE demand has improved with Mexico and Chile's offtake improving for the month of July. US MTBE production rates improved to 65-70pc in June, and could increase up to 80pc by July. The US also continues to see interest for Asian markets, but the arbitrage is currently shut. But a further rise in Covid-19 cases could slow down the recovery in MTBE prices.

Long term

US MTBE demand from Mexico is expected to improve from current levels, but demand may shift more towards neat exports as Pemex's refinery rates improve. There should be pockets of demand in Mexico as new infrastructure is built to store finished gasoline and MTBE. The start-up of LyondellBasell's new PO/TBA unit will not happen until 2022 because of delayed construction.

Supply and demand

US methyl tertiary butyl ether (MTBE) production is on the rise as a result of scheduled exports to Asia and Europe in June. US MTBE markets are also starting to see improved offtake from Pemex's trading arm PMI and Chile's Enap for July. The improved demand is expected to keep MTBE supplies balanced to snug as inventories will be low as a result of low operating rates since April. Operating rates are estimated at 65pc to 70pc, and could rise to 80pc by July.

Transportation restrictions to limit the spread of Covid-19 eased this month in Mexico City, and state owned oil company Pemex has been ramping up utilization rates at its refineries. The system-wide utilization rate was an estimated 44pc in the week ended 1 May, up from around about 38pc in April after a round of maintenance earlier this year, according to federal data. Mexico has been prioritizing the consumption of domestic gasoline production in the past few months, while gasoline demand has fallen up to 30-40pc. The increase in Pemex's refining rates is the main reason why there is more demand for neat MTBE versus blended in gasoline. Mexico still has up to 20 vessels with fuel that need to discharge, which could limit gasoline import demand for another few weeks. Mexico will see lower gasoline production in late June as a result of a 7.4-magnitude earthquake in the state of Oaxaca. An explosion in turbo-generators and a boiler caused a fire that was extinguished immediately at the 330,000 b/d Salina Cruz refinery in Oaxaca, according to Pemex.

Looking ahead post Covid-19 prevention efforts, we see MTBE demand to return in Mexico and underpin US exports.

But a second wave of Covid-19 later in the year could reverse the recovery. Going further out in the future, MTBE demand from Mexico will heavily depend on maintenance at the current six refineries and the construction of a new refinery in Dos Bocas, Mexico.

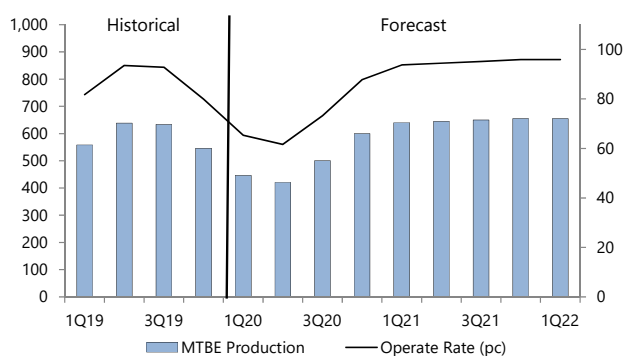
The new LyondellBasell MTBE/ethyl tertiary butyl ether (ETBE) unit in Bayport, Texas has now been delayed for start-up in 2022 as the company reduced non-essential work because of Covid-19.

Pricing outlook

US MTBE prices are set to increase further in July as rising interest from Mexico and Asia will keep supplies tight. The US is now trading 2¢/USG below Europe, down from a 33¢/USG differential in mid-May. The US is expected to start trading above European MTBE prices in July. But the price upside will be limited as a result of increased MTBE production and possible renewed driving restrictions.

US MTBE production forecast

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Supply and demand outlook — Europe

Near term

Increased driving activity across the globe continued to boost gasoline exports and supported the blending of high octane components. Demand for MTBE has been steadily increasing in Europe, and prices are supported by gains in the energy complex in general. MTBE flat-prices remained well above the \$400/t level, but will have limited upside in the next few months because of improved MTBE production and the possibility of a second wave of Covid-19.

Long term

MTBE prices will be driven by a recovery in oil prices, which already have gained 350pc since a low of \$9.59/bl on 21 April. But MTBE's differential to gasoline is expected to fall in 3Q 2020, limiting MTBE's price upside, as European MTBE producers begin to increase operating rates. MTBE demand will mainly be driven by gasoline exports as more European countries will comply with biofuel mandates.

Supply and demand

Methyl tertiary butyl ether (MTBE) supply is balanced in the Amsterdam Rotterdam Antwerp (ARA) region, and the flow of exports from northern America to Europe has not increased to a level which has overwhelmed inventories. An increase in MTBE demand in Mexico with a resurgence in driving activity will probably encourage exports of US material to Latin American markets. Production of MTBE in Europe to supply the domestic market has increased slightly in line with rising domestic offtake.

MTBE demand in Europe depends on the combination of gasoline export demand to Africa, the Middle East and Latin America and favorable blending economics. Blending demand in the ARA region has firmed in recent weeks, with cargoes arriving from southern Europe, as well as Spain and France, and more typical locations such as the Baltics. Barges have even been arriving via the Rhine river from Germany – in the opposite direction to normal flows – to meet blending demand for re-export. Export demand is so far outstripping a lackluster European gasoline market. West African bookings reached a 14-week high of 700,000t in mid-June, following reports of falling offshore storage in the region. Floating storage in northwest Europe is moving the other way. Just under 900,000t of gasoline is floating offshore of northwest Europe as of Tuesday, according to Argus analysis and data from oil analytics firm Vortexa. It is up from over 600,000t on 9 June, but still below its peak of nearly 1.1mn t reached towards the end of May.

The Eurobob versus naphtha differential is currently at minus \$1/t, which does not favor blending the combination of naphtha and high octane blendstocks like MTBE. The Euro-

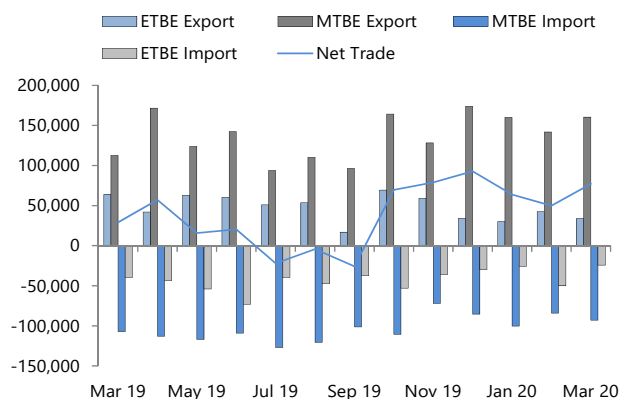
bob versus naphtha differential was \$127/t during May of last year. The unfavorable blending economics could be limiting the amount of MTBE blended for gasoline exports. The Eurobob versus naphtha differential is not expected to rise above \$50/t until late in the first quarter of 2021.

European MTBE supplies will continue to improve in July, but increased MTBE supplies from ethylene crackers complexes may take longer because of some producers co-cracking the C4s due to poor butadiene prices.

Pricing outlook

Rotterdam MTBE's differential to Eurobob is expected to fall in the third quarter of 2020 as MTBE production rates are expected to increase. The arbitrage to move product from the US is currently shut and reducing the prospect of increasing supplies. The MTBE factor is expected to stay flat at 1.26 during July and August, before falling to 1.18 by November 2020.

EU-28 MTBE/ETBE trade tons



Supply and demand outlook — Asia-Pacific

Near term

A supply shortage starts to ease after the closing of the intra arbitrage from southeast Asia into China, along with no major planned maintenance in the regions. MTBE prices will be stable to firm, largely because of the increase in gasoline prices instead of demand. Demand is expected to be subdued compared to May and June because of cheaper alternate blendstocks in the market, such as toluene and xylenes.

Long term

Driving activities are poised to increase after several countries lifted their lockdown measurements, pushing MTBE prices higher with more blending activities. Lucrative gasoline refining margins and blend economics will also support MTBE demand. But the gains in the energy sector might be capped amid fears of a potential second wave of coronavirus outbreak in the coming months.

Supply and demand

Methyl tertiary butyl ether (MTBE) supply in Asia will lengthen in July amid no major turnarounds along with more incoming cargoes. There will be a total of around 35,000t of US origin cargoes reaching Asia in July. Around 15,000-20,000t of term cargoes from one of the major producers in the Middle East will be reaching Singapore as well, adding more MTBE supply to the currently balanced inventories.

The arbitrage to send cargoes into China is firmly shut as fob Singapore prices rebounded to a three-month high, while Chinese domestic prices were lower compared with fob Singapore. More molecules will emerge from Chinese producers, with Shandong Yuhuang's 500,000 t/yr and Wanhua Yantai's 820,000 t/yr MTBE plants restarting production after maintenance.

Market players are focusing on South Korea amid a turnaround at S-Oil's 370,000 t/yr MTBE plant, which will last until the end of July. Supply in northeast Asia will probably be tighter in July compared with southeast Asia amid the closed arbitrage. Taiwan's main producer Formosa is also unlikely to have any spot cargoes until August.

Gasoline refining margins continued to be firm and reached a three-month high at around \$4/t in June after most countries lifted lockdown measures. Blending margins are expected to remain at a lucrative level above \$2.60/bl as well, with more driving activities emerging in southeast Asia. The uptick of gasoline sentiment will bring up more blending activities, supporting MTBE prices and demand.

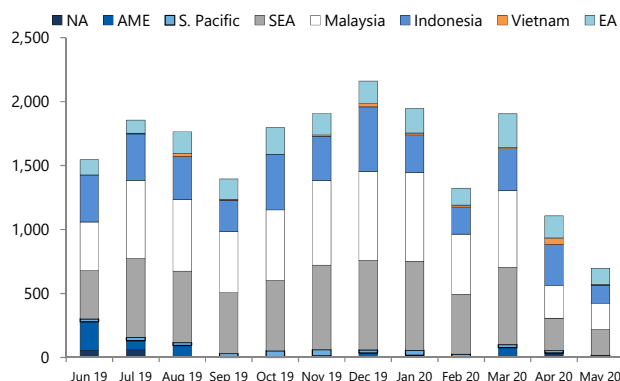
But demand for MTBE is expected to be weaker in July compared with May and June because of the surge in MTBE prices. Discussions among blenders are now turning attention to search for cheaper blendstocks, such as toluene and xylenes, weighing on MTBE demand.

Pricing outlook

Asian MTBE prices are poised to remain firm in July following gains in gasoline prices amid the easing of lockdown restrictions in various countries. More blenders and gasoline producers will gear up to produce more gasoline as well, prompting more MTBE demand and usage in the blending sectors. But MTBE supply might lengthen given the incoming US and Middle East origin cargoes, which will weigh on the gains in MTBE prices. Increased supply in China after a series of turnarounds at two major producers will also pressure domestic prices.

Singapore gasoline export

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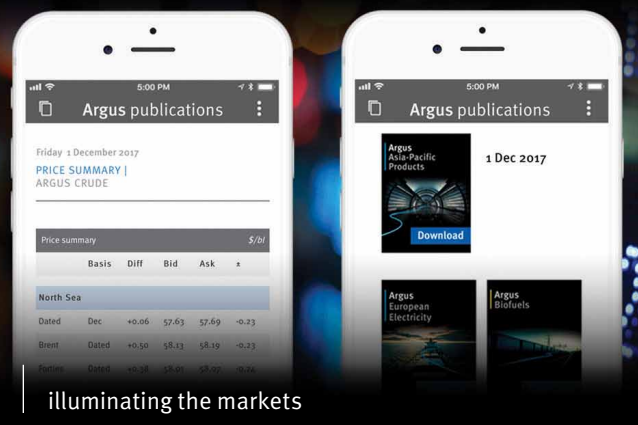
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