ASIA PETROCHEMICAL OUTLOOK H1 2017
AROMATICS & BLENDSTOCKS

PETROCHEMICALS SPECIAL REPORT
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AROMATICS
Competition to heat up in PX, PTA in 2017 as new plants come online
Asia benzene supply to get a boost in 2017; exports, downstream demand to rise
MX market set to be in flux 2017 on changing supply fundamentals
Caprolactam demand seen flat in H1 2017, but prices to remain firm
Fresh OX spot supply expected from South Korea in 2017

BLENDSTOCKS
Cautious recovery for Asian MTBE in H1 2017
Asia's toluene demand to firm H1 2017 but supply picture mixed
FOREWORD

Fresh supply is expected to enter Asia's aromatics markets over 2017, and the timing for the new aromatics plants will be crucial, especially as new downstream derivative plants start up and whether idle plants resume operations. Typically, new plants don't stick to their initial startup plans so it is widely expected that fresh paraxylene supply from the Middle East, India and Southeast Asia may only be felt in Asia's PX market towards the end of 2017. In spite of the increased production, benzene markets are optimistic as new downstream derivative demand from phenol/acetone, caprolactam and styrene monomer sectors will consume the fresh benzene supply. Nevertheless, the fresh aromatics supply seems to favor term buyers. However, on a cautious note, a weak Yuan could limit China's demand for imported aromatics as import costs increase as a result. But for MTBE markets, China's demand for the gasoline blendstock is expected to fall as domestic MTBE production capacity starts up such as Sinopec Jinling's 800,000 mt/year plant. A key thing to note for early 2017 China's overall petrochemicals demand is an earlier than usual Lunar New Year holiday, which takes place in January rather than February. In toluene markets, buyers sought to secure their requirements in December 2016 in order to tie them over until the holidays end in February. One event that market participants will be monitoring is how cuts in crude oil production by OPEC and non-OPEC producers in January will affect downstream markets. The producers agreed in two separate meetings in late November and early December to cut collective output by almost 1.8 million b/d. Please read through our outlook for the first half of 2017 to see what the New Year brings!

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AROMATICS

COMPETITION TO HEAT UP IN PX, PTA IN 2017 AS NEW PLANTS COME ONLINE

Several new paraxylene and purified terephthalic acid plants are due to start up in Asia in 2017, increasing competition in both markets, particularly from the second half of the year, market sources said recently.

However, the looming new supply will result in little or no change to the long term contracts currently being negotiated for the year, they said.

China’s Jiangsu Shenghong Chemical Fiber Co. settled its 2017 long-term contracts with major Japanese and South Korean producers for buying PX in the second week of December at pricing terms unchanged from its 2016 contracts.

“There is no point fighting over 50 cents for six months,” a company source said at the time, adding the settlement would “minimize uncertainty in the market.”

Several long-term contracts for 2016 were not settled until April-May the same year.

Much attention has been focused on India’s Reliance and the startup of its new 2.2 million mt/year PX plant at Jamnagar, which was initially set for October, but has been facing delays into December.

Reliance earlier indicated it would have about 1 million mt/year of PX available for export, but the 2017 volume was expected to be less than that as exports are only likely to begin from March-April, sources have said.

Also in India, JBF Industries aims to start up its new 1.25 million mt/year PTA plant in the Mangalore Special Economic Zone in the first quarter of 2017, a source close to the company said in November. This is slightly later than the previously indicated startup in October-November of 2016.

PTA from the Mangalore plant will be used in the company’s downstream 400,000 mt/year polyethylene terephthalic plant in Ras al-Khaimah in the UAE. JBF Industries also operates a 560,000 mt/year PET plant in Gujarat in India. The company will source feedstock PX from ONGC Mangalore Petrochemicals Ltd’s 920,000 mt/year PX plant once its Mangalore PTA plant is completed.

More PX coming, but timing unclear

Saudi Arabia’s Petro Rabigh is expected to start up its phase 2 project, which includes 1.34 million mt/year of PX and 424,000 mt/year of benzene capacity, in Q2 2017, Platts reported earlier.

Mid-year, Vietnam’s Nghi Son Oil Refinery & Petrochemical is expected to start producing 680,000 mt/year of PX and 200,000 mt/year of benzene from its aromatics complex south of Hanoi.

However, market sources expect there may be delays in the start-up of both projects — there usually are delays when new plants start up — and several have said the full force of the supply increase from the new PX capacities in the Middle East, India and Southeast Asia may only be felt in Asia’s PX market towards the end of 2017.

South Korean PX supply may also increase. Hanwha Total Petrochemicals plans to debottleneck its No. 2 aromatics plant at Daesan over May–June and increase its PX production capacity to around 1.26 million mt/year from 1.06 million mt/year.

South Korean PX producers Lotte Chem and Hyundai Cosmo Petrochemical are expected to be able to produce more PX in 2017 after Hyundai Chemical began operations at its new 1 million mt/year mixed xylenes unit at Daesan in early October. MX is a feedstock for PX production.

The Hyundai Chemical plant — a condensate feedstock-based facility — is a joint venture between Hyundai Oilbank and Lotte Chemical.
Half the MX output from Hyundai Chemical’s new plant is contracted to Lotte Chemical, which operates two PX plants at Ulsan with a combined PX production capacity of 775,000 mt/year. The other half will be sent to Hyundai Cosmo Petrochemical.

Hyundai Cosmo Petrochemical, a 50:50 joint venture between Hyundai Oilbank and Japan’s Cosmo Oil, operates two aromatics plants at Daesan that can produce a total 1.18 million mt/year of PX.

PTA expansions, restarts in China, Taiwan
In the downstream PTA market, Taiwanese producer Oriental Petrochemical Taiwan Co. plans to start production at its new 1.5 million mt/year plant at Taoyuan towards end Q2 or early Q3. But as its 400,000 mt/year No. 1 PTA unit will shut permanently after that, its net PTA capacity will be 2 million mt/year, including its existing 500,000 mt/year No. 2 unit.

In China, some idle units may restart, although the exact timing remains uncertain.

Chongqing Pengwei Petrochemical will restart its 900,000 mt/year PTA plant at Fuling in Sichuan province in Q1, a source close to the company said earlier in December.

China’s Xianglu Petrochemical may be set to restart a 1.5 million mt/year plant this year but the timing remains unclear. The company has a total capacity of 4.5 million mt/year at Zhangzhou in Fujian province which has been idle since mid-2015.

Meanwhile, Shaoxing Reignwood Petrochemical, formerly known as Shaoxing Yuandong Petrochemical, looks set to restart its largest PTA plant with capacity of 1.4 million mt/year some time in Q1, market sources have said.

Towards the end of 2017, Tongkun Group plans to start up a new PTA plant in Zhejiang province with the capacity to produce 2.2 million mt/year.

Beyond 2017: China’s PX capacity to soar
Looking further forward, China’s CNOOC Ningbo Daxie Petrochemical will start up a new 1.6 million mt/year PX plant at Ningbo in late 2017 or early 2018, sources have said.

Over 2018-2020, China’s PX capacity is set to balloon by at least 11.6 million mt/year, including the new Ningbo plant, and the surge of new supply could have a major impact on the Asian PX market.

Rongsheng Group and Tongkun Group are among the Chinese companies that are building an integrated refinery and petrochemical complex on Zhoushan Island in Zhejiang province, which will boost China’s PX production capacity by 8 million mt/year by 2020, Platts reported earlier. Stage one comprises the completion of 4 million mt/year of PX production capacity by the end of 2018, and stage two an additional 4 million mt/year by end 2020.

Separately, stage two of Ningbo Zhongjin Petrochemical’s PX project is expected to start up in late 2018, which will add another 2 million mt/year of PX capacity to its existing 1.6 million mt/year. Ningbo Zhongjin is a subsidiary of Rongsheng Group.

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ASIA BENZENE SUPPLY TO GET A BOOST IN 2017; EXPORTS, DOWNSTREAM DEMAND TO RISE

One trend that is here to stay in 2017 is the Asian benzene market’s exporter status, as production capacities increase across the region with South Korea leading the way as Asia’s key exporter of benzene globally.

On the demand side, the Chinese downstream market is expected to overtake the US Gulf Coast as the key buyer of Asian benzene, but the new downstream plants could potentially face further delays.

More export volumes on high run rates, less turnarounds
According to several Northeast Asian producers, benzene plants across Asia will possibly maintain close to 100% operating rates 2017 as production spreads have been strong over the last two years on cheaper feedstock naphtha.

The benzene-naphtha spread averaged at $232.06/mt over January-November, up 17% year on year. Producers’ breakeven spread is typically at $120-$150/mt.

Sources added that large integrated producers will also continue to run less cost-effective secondary units — such as toluene disproportionation, or TDP, units — as margins have been good on strong benzene and co-product paraxylene prices. TDP units use toluene as feedstock to produce benzene and isomer-grade mixed xylenes.

Meanwhile, market sources expect to see a drop in planned turnarounds 2017, although downstream plants will maintain regular maintenance works, thus Northeast Asia will likely have to increase export volumes to clear the excess supply.

According to calculations by S&P Global Platts, South Korea’s benzene production loss in 2016 from turnarounds is estimated at 328,000 mt.
Market participants estimate the total export volume from South Korea to hit 2.2 million-2.5 million mt in 2017, up 10%-25% from 2016. Japan is also expected to see higher exports in 2017 on massive downstream turnarounds. Its total export volume in 2016 is estimated by industry sources to be 900,000-950,000 mt, jumping close to 50% year on year after two downstream styrene monomer plants, with a combined capacity of 740,000 mt/year, shut down permanently in 2015-2016.

**New benzene capacities**
Adding on to the crowded supply scene is approximately 2.17 million mt/year of new benzene capacities, scheduled to come on stream in Asia and the Middle East in 2017. This wave of new benzene plants will increase Asia’s total benzene production capacity by around 5.1% year on year to 19.63 million mt/year in 2017.

According to market sources, India’s Reliance Industries will start up its 500,000 mt/year benzene plant at Jamnagar in January, one-year later from its initial startup date in early 2016.

By the end of H1 2017, Vietnam’s Nghi Son Refinery is expected to start up its 240,000 mt/year benzene plant.

In China, around 220,000 mt/year of new benzene capacity is expected to be commissioned in 2017 and around 340,000 mt/year of capacity expansions are planned, according to market sources. But, several of these plants could face potential delays from financing issues or margins at the time of start-up.

Supply pressure is also expected from the Middle East with around 709,000 mt/year of new benzene capacities to come online in 2017. Saudi Arabia’s Petro Rabigh phase 2 project is expected to start up its 424,000 mt/year benzene plant in Rabigh by Q2 2017, while Saudi Aramco is scheduled to bring on stream its 285,000 mt/year benzene plant in Ras Tanura by H2 2017.

**Downstream demand to increase on new plant capacities**
Despite the flow of more benzene supply in 2017, sellers are bullish for the year ahead as they expect firm downstream margins and growth of downstream benzene capacities, especially from China, to help consume most of the excess supply in Asia.

Around 2.84 million mt/year of new downstream benzene production capacity — from phenol/acetone, caprolactam, styrene monomer, MDI plants — is slated to come online in Asia and the Middle East in 2017, with approximately 1.77 million mt/year based in China.

But existing local production woes will likely impede domestic benzene output in China, thus increasing the need for imported cargoes. Following strict implementation of environmental policies to reduce air pollution in mid-2016, several Chinese coal-based benzene plants are said to be operating below 50% of capacity.

Amid erratic domestic supply, Chinese sources have estimated 2017 import demand to rise by at least 15%-20% to possibly reach 1.5 million-1.8 million mt, which could help China surpass the US Gulf Coast as the key buyer of Asian benzene.

**Firm downstream SM to drive demand**
Downstream styrene monomer was cited by market sources to be the key product to drive benzene demand in H1 2017, as it consumes around 45% of the total benzene production in Asia.

The styrene-benzene spread averaged at $394.08/mt from January-November 2016, stable from the average price spread of $386.42/mt over the same period in 2015, both above the breakeven spread of $250/mt.

In the first two months of 2017, downstream Asia styrene monomer is expected to face tight availability as a result of reduced deep-sea cargoes from the US and the start of turnaround season in Asia at the end of Q1 2017.

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**MX MARKET SET TO BE IN FLUX 2017 ON CHANGING SUPPLY FUNDAMENTALS**

With new mixed xylene capacity having come online in the second half of 2016, the demand-supply balance has tilted in favor of buyers in 2017 based on term negotiations for the year.

Taiwan's CPC became the first producer to settle its term contracts for 2017, with sources close to the negotiations saying that the premium to Platts FOB Korea assessments was “close to $4/mt”, down from $10/mt in 2016.

Thai producer IRPC settled its 2017 term contract at a discount of $8-$10/mt to the Platts FOB Korea marker, similar to the 2016 level, a source close to the company said.

As of the writing of this outlook, producers yet to conclude their term negotiations included South Korea’s GS Caltex and Petron Corp. from the Philippines, although sources close to one of the negotiating parties said that they expected the FOB Korea term premium to settle close to CPC's level.
End-users wary as spreads widen

Behind the fall or expected fall in premiums for 2017 is the startup of South Korean Hyundai Chemical's 1 million mt/year MX plant at Daesan in late October, which is running smoothly, according to a source close to the company. And the effect is visible in the margins.

Until October 31, 2016, the average spread between the FOB Korea isomer-MX and CFR Japan naphtha markers was $257.05/mt.

From November 1, after Hyundai Chemical's plant started up, until December 7, the spread averaged $207.32/mt, far narrower from the near three-year high of $312/mt on August 5.

For isomer-MX producers, $100-$150/mt is considered a reasonable breakeven level, depending on the age of the plant.

Unintegrated paraxylene producers are also seeing higher margins, though to a lesser extent with the spread between CFR Taiwan/China PX and FOB Korea isomer-MX averaging $144.35/mt until October 31. From November 1 to December 7, the spread averaged $158.22/mt, S&P Global Platts data showed.

Demand in Northeast Asia on the whole remains stable with Hyundai Cosmo Petrochemical and Lotte Chemical continuing their operations unchanged from earlier in 2016, before the Hyundai Chemical plant's startup, traders said.

A source close to Lotte Chemical said that it remained to be seen if the company would restart its No. 2 PX plant at Ulsan in the near future, in spite of margins rising in line with the widening spread. The plant was shut in March 2016.

Turnarounds to tighten supply in H1

On the supply front, some tightness is expected as a number of plants are scheduled for maintenance in the first half of 2017.

Thai producer IRPC will be the first to shut its aromatics plant at Rayong for a month in February for maintenance, coinciding with a turnaround of the 215,000 b/d refinery at the same site.

In Northeast Asia, many Japanese producers will be scheduling maintenance in the second quarter, to come back online for the start of the summer driving season, when some product is channeled into the blending pool.

WEAKENING MX-NAPHTHA SPREAD IN 2017

Source: Platts

Fuji Oil will shut its plant at Sodegaura for a month of maintenance in May, while Tonengeneral will shut its Chiba MX plant from end-February, with the turnaround likely to last until mid-April.

Showa Shell will shut its new toluene disproportionation unit at Yokkaichi in May for around two months for a turnaround, to coincide with planned maintenance at the company's 255,000 b/d Yokkaichi refinery.

Solvent-MX premiums soar with output expected to shrink

Tighter supply in South Korea has set the tone for 2017 term discussions, with producer LG Chemical already having settled its contract for 2,000 mt/month at a premium of $10/mt to the Platts FOB Korea assessments in late November.

Lotte Chemical, which in 2016 was selling cargoes from its Daesan and Yeosu aromatics plants, will be selling exclusively from Yeosu in 2017.

Its Daesan production will be diverted to Hyundai Chemical, a joint venture MX plant that started up in October last year, where it will be used to supplement PX production.

Consequently, Lotte Chemical is offering only one or two term contracts in 2017, compared with four in 2016.

YNCC, meanwhile, which sells its product exclusively on a spot basis, will be reducing the cargoes offered every month to channel some supply into the company's gasoline production pool.

The increase in the premium in South Korea pales in comparison to the double-digit increase for Thailand's Map Ta Phut Olefins Co., which settled its 2017 term contracts at a premium of “more than $40/mt to the FOB Korea assessments, up from a mid-$20s premium in 2016,” said traders close to the discussions.

The tone for the discussions was set over the last few months of 2016, when a lot of monthly spot cargoes were awarded at premiums in excess of $40/mt as spot demand from China rose briefly.

For the near term though, spot output from Northeast Asia will remain limited at best, with producers in South Korea currently feeding LPG into their aromatics plants as it is more competitively priced than naphtha.

However, a consequence of this is reduced aromatics output, which leaves them able to meet only term requirements for the time being, according to a producer source.

“Switching back to heavy naphtha feedstock would take time, and at the moment, it’s likely we’ll continue feeding LPG...at least, while prices remain competitive,” the source added.

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CAPROLACTAM DEMAND SEEN FLAT IN H1 2017, BUT PRICES TO REMAIN FIRM

Asian demand for caprolactam is likely to remain flat in the first half of 2017 amid a tepid downstream Nylon 6 market, but prices are likely to remain firm due to tight supply, market participants said. "Many nylon producers are currently running at lower operating rates and this could continue into the first two quarters..." a nylon producer in Northeast Asia said.

"The cold weather months of October-February used to be the peak demand season for nylon products, which in turn fuels demand for caprolactam, but this year nylon demand has been so weak and is unlikely to improve (2017)," the nylon producer added.

While demand for caprolactam may remain weak, supply is expected to be tighter in H1 2017, a Northeast Asian caprolactam producer said. "We expect caprolactam supply to remain tight for the first half...as caprolactam supply from Europe and US will be greatly reduced due to capacity reductions and plant shutdowns in those regions," the caprolactam producer added.

In addition, several Asian caprolactam producers are also running at reduced operating rates amid a general market slowdown, a second Northeast Asian caprolactam producer said. China will also increasingly become more self-sufficient in caprolactam, with new capacities coming on stream in 2016 and 2017. This includes Luxi Chemical's new 100,000 mt/year caprolactam plant at Liaocheng in Shandong province, which is slated to start up in Q1 2017.

This comes after 800,000 mt/year of new capacity came on stream in 2016 at six plants owned by Risun, Lubao, Sanding, Luxi Petrochemicals, Shenma and Zhonghua, each with a capacity of 100,000 mt/year, and at a 200,000 mt/year plant owned by Henjia Hexian.

China divide

The additional capacity in China has seen domestic caprolactam prices remain lower than in other Northeast Asian markets such as Japan, South Korea and Taiwan. "The Northeast Asia market is increasingly divided on an ex-China market price and China market price, since most sellers are unwilling to match Chinese market prices in Taiwan," a caprolactam buyer said.

This divide in Northeast Asian prices between outside and inside China will continue into 2017 — and be further exacerbated by the new capacities coming on stream in China.

Spot activity is likely to remain subdued in H1 2017, with market participants turning to monthly contract settlements to not only determine prices trend and direction, but also to cover most of their requirements with contract cargoes, market participants said. "In the past, spot prices used to be $50-$70/mt lower than monthly contract settlements, but increasingly the gap is narrowing and buyers find no need to buy additional spot cargoes nowadays, since the contract volume is sufficient for their production," a caprolactam producer said.

Caprolactam prices are expected to remain firm in the first few months of 2017 as tighter regional supply outside of China will boost spot prices.

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FRESH OX SPOT SUPPLY EXPECTED FROM SOUTH KOREA IN 2017

Asia's orthoxylene market is expected to see relatively higher spot supply this year compared with 2016, with new volumes coming from South Korea and Singapore. South Korea's Lotte Chemical has started selling spot cargoes to the market since November 2016, after feedstock became available from Hyundai Chemical's new 1 million mt/year mixed xylenes unit at Daesan, which started operations around October 2016. The Hyundai Chemical plant is a joint venture between Hyundai Oilbank and Lotte Chemical.

Korea Customs Service statistics data showed there were still no exports from South Korea as of November. S&P Global Platts records show that the last significant OX export from the country was back in December 2014 when about 4,001 mt were exported. At least 2,000 mt of OX was expected to arrive in China from South Korea in December following conclusion of deals end-November, a China-based buyer said.

Lotte Chemical had also offered 1,000-2,000 mt each month for loading over January-March 2017 from Ulsan port in a mini-term tender that closed December 9. According to several market participants, the tender was withdrawn.

One trader said that the company was heard to be reviewing its pricing basis, on whether it is better to sell on a fixed price or on a floating price pegged to a formula. He added he heard the company was still in the process of negotiating domestic contracts for 2017. "If they can make full commitments with [domestic customers] Hanwha Total or Aekyung, then they [Lotte] will have less cargoes to export," he said adding however that he expected...
at least one to two 2,000-mt cargoes per month could still be available for export to the international spot market.

However, when contacted by Platts on December 19, a company source from Lotte Chemical declined to give further details but said “we are reviewing the tender.” He also said that in terms of OX supply from the company, it all boils down to economics. “Only if we can reach certain level of which we can earn money, then we can produce. Otherwise, we cannot produce,” he added.

**Steady supply from JAC expected until mid-2017**

Meanwhile, steady exports from Singapore’s Jurong Aromatics Corporation are expected at least during first-half 2017. In July, when the one-year tolling arrangement with BP and Glencore would have been completed, new negotiations are expected to be underway, market participants also said.

At least around 9,000 mt to 12,000 mt of exports are expected from JAC every month in 2017, sources also said. The aromatics complex was shut in December 2014 and JAC filed for receivership in September 2015 after debt restructuring talks broke down. The plant, which resumed operations in July 2016, is able to produce 200,000 mt/year of OX. JAC could not be reached for comment.

**OX prices soar in Q4 on firm downstream demand**

CFR China prices started to pick up and were supported mid-October after China’s Golden Week holiday amid strong demand from the downstream phthalic anhydride market.

OX hovered along $710/mt from beginning of the year until mid-October, when it started to rise and jumped to $744/mt on October 21 and since then has been on a rising trend, Platts data showed. Platts assessed OX CFR China at $840/mt on December 16, 2016.

According to one trader, during this period low operation rates from naphthalene-based PA plants were observed. He added that the Chinese market was relatively more optimistic during the fourth quarter of 2016.

“Inflation expectation in 2017, speculation and prompt inventory shortage [had] led [to] more forward demand [for OX],” he said.

The year 2016 began with the spread between OX and MX FOB Korea prices seen at its lowest of $5/mt on January 8, 2016. From then until the month of September, the spread had averaged about $45/mt. However, on October 16 the spread started to widen and peaked at $175.50/mt on November 20, amid more MX supply seen in H2 2016.

Amid strong demand for PX, the spread between paraxylene and OX FOB Korea prices flipped to negative on November 13, 2016, at minus $24.50/mt. With OX prices higher than PX, this encouraged producers to increase OX production relative to PX.

According to some sources, demand for OX has been seen as healthy in December amid early stockpiling activities on the back of China’s Lunar New Year holidays, which fall on January 28-29. One trader said he expected demand to also pick up after the Lunar New Year when some buyers will be restocking. Thereafter seasonal demand is also expected around October, before Christmas, he added.

**Alternative feedstock naphthalene prices still competitive**

Domestic OX prices in East China are currently at Yuan 7,700-8,000/mt ex-works, according to sources surveyed on December 19. That was equivalent to $932-$969/mt on an import parity basis, well above international spot prices, which was last assessed at $840/mt CFR China on December 16. A Northeast Asia trader said the relatively better prices in the Chinese domestic market could encourage distributors to import more cargoes.

Meanwhile, naphthalene prices in China were heard at Yuan 4,000-4,050/mt on a delivered basis to East China. Naphthalene, which is derived from coal tar, is a substitute or alternative feedstock to OX in the production of PA. Currently, the OX-naphthalene spread remains wide at about Yuan 3,700-3,950/mt, according to sources.

Despite competitive naphthalene prices, there are some environmental concerns on its use. One trader said he heard some naphthalene-based PA plants had to earlier curb their production amid governmental checks.

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BLENDSTOCKS

CAUTIOUS RECOVERY FOR ASIAN MTBE IN H1 2017

For first half of 2017, Asian MTBE producers, gasoline blenders and traders are cautiously optimistic of a recovery, at least from the perspective of stronger crude oil prices, which most believe would average between $45/b and $50/b, according to industry sources polled by S&P Global Platts.

And South Korea, Taiwan and Southeast Asia will continue to provide support to Asian MTBE prices during H1 2017, as these markets are active importers of MTBE in Asia, while Chinese import demand will slow as new capacity comes online, industry sources said.

Looking back at most of the first half of 2016, Asian MTBE prices were supported when crude and gasoline prices were on an uptrend from mid-February onwards, with crude climbing from around $30/b in February to briefly over $52/b in June. Asian MTBE prices rose from a low of $422/mt FOB Singapore on February 10 to $646/mt FOB Singapore on June 9, Platts data showed.

“For the second half of 2016, bullish crude continued to support gasoline and MTBE prices, with Asian MTBE traded [at] around $500/mt to over $650/mt FOB Singapore, and crude ranging from $43/b to over $52/b, from July to October,” said a major MTBE producer.

On December 21, 2016, MTBE price assessments stood at $713/mt FOB Singapore while crude was at $55.82/b.

With MTBE mainly used as a blendstock for gasoline blending, a sustainable recovery for MTBE will hinge on a strong gasoline recovery during the first half of 2017, said a Singapore-based gasoline blender.

Typically, MTBE prices are well supported throughout most of the second quarter, as the Asian gasoline market gathers momentum ahead of the summer driving season, and reduced gasoline supply from refinery maintenance season boosts gasoline prices and in turn lift prices of fuel additives and blendstocks such as MTBE.

“For 2016 however, despite record demand for gasoline during the summer driving season, there was also abundant regional supply, which pressured gasoline crack values versus Brent,” said the gasoline blender.

The peak gasoline period in China is generally between May and October, a period which combines the summer driving season, as well as major holidays during September through to October, when China enjoys a week of Mid-Autumn Festival celebrations, followed by another week of National Day holidays.

“Prices of both gasoline and fuel additives such as MTBE would normally be firmer during these months,” said a Chinese producer.

However, Chinese domestic prices of MTBE have been falling with new capacity additions since 2015, such as Yantai Wanhua’s 800,000 mt/year MTBE plant in Shandong, which started up in July 2015.

Chinese domestic prices which had ranged from highs of Yuan 6,800-7,000/mt prior to 2015, subsequently fell to Yuan 5,000-6,100/mt in 2016.

Hence, even with stronger demand for both gasoline and MTBE during the peak season, Chinese domestic prices are unlikely to recover to previous highs, before the Yantai Wanhua MTBE plant came on stream.

“It is also more likely that should the Sinopec Jinling plant start up in mid-2017, there will be further pressure on Chinese domestic MTBE prices,” the producer said.

Chinese MTBE exports to increase, as imports fall in 2017

Yantai Wanhua had planned to export approximately 100,000-200,000 mt/year of MTBE from its plant, and the balance is earmarked for the domestic market.

A Chinese producer estimated that Wanhua’s MTBE exports for 2016 are likely to be closer to 100,000 mt than 200,000 mt.

There was an additional 1.47 million mt/year of capacity added over 2015-16, including the 800,000 mt of capacity output from Yantai Wanhua, bringing China’s total MTBE capacity expansion to more than 6 million mt/year by end of 2016.

With the potential start-up of Sinopec Jinling’s 800,000 mt/year plant, this will bring China’s total MTBE capacity expansion for 2017 closer to 7 million mt/year, the Chinese producer said.

The 800,000 mt/year MTBE plant, a joint venture between Sinopec Jinling and US-based Huntsman Corp., was expected to come online in Nanjing by first-half 2017.

ASIAN MTBE TRACKS VOLATILE 92 RON GASOLINE IN 2016
“China imported around 250,000 mt of MTBE in 2015. For 2016, MTBE imports into China are forecast to be around 200,000 mt to 220,000 mt, as increased domestic production of MTBE offsets import volumes for 2016. For 2017, import volumes of MTBE will likely shrink further, to around 150,000 mt, whilst export volumes will likely increase beyond 200,000 mt,” he said.

Meanwhile, with China’s gasoline demand expected to continue rising on rapidly increasing car ownership levels, which expanded from 172 million gasoline-fueled cars on China’s roads in end-2015, to 184 million gasoline-fueled cars by June 2016, most of the incremental domestic MTBE production can be easily absorbed into the gasoline blending pool.

To offset the decrease in Chinese import demand for MTBE, regional producers hope that gasoline demand from fast-growing economies such as India and Africa may offset the decline in demand from Northeast and Southeast Asia during the seasonal lull.

At the same time, volumes from the Middle East to Asia in 2017 are expected to be similar to slightly higher than in 2016, according to market participants. Supply from the Middle East to Singapore has seen an increase since 2016, after ENOC started exports of MTBE to Singapore in 2015.

In 2016, Singapore was expected to import around 1 million mt of MTBE from regular suppliers such as Saudi Arabia’s Saudi Basic Industries Corp. or Sabic, Qatar Fuel Additives Co. or Qafac, and ENOC, as well as Taiwan’s Formosa Petrochemical Corp.

The International Monetary Fund has forecast a slower growth rate for China’s gross domestic product growth at 6.2% next year, from 6.6% in 2016, and sees India’s GDP growth at 7.6% for both 2016 and 2017, the fastest pace among the world’s major economies.

“Domestic prices will continue to drive the Chinese market trend and price direction of the import market (2017) as buyers are increasingly comparing domestic cargo prices with that of import cargoes. When the spread between both prices are wide, supply in Southeast Asia in the first half of 2017 could remain tight due to planned plant maintenance in the region. These include turnarounds at Thai IRPC’s 70,000 mt/year toluene plant in February, Thai PTT Global Chemical’s 60,000 mt/year toluene plant over May-July and Philippine Petron’s 144,000 mt/year toluene plant during April-May.

South Korean supply was expected to remain stable in the first quarter of 2017, although supply could tighten due to firmer domestic demand for use in paraxylene production, a South Korean seller said.

“Supply could also tighten in the second quarter amid planned maintenance shutdowns although there have not been any firm plans yet,” a second South Korean seller added.

China’s supply is, however, expected to increase in 2017 as several new toluene production plants are expected to come on stream next year. These include Yunnan Petrochemical’s 250,000 mt/year plant in Kunming and Huizhou Petrochemical’s 350,000 mt/year plant in Huizhou province.

Luoyang Petrochemical’s 100,000 mt/year plant in Henan has an expected startup date in 2017-2018.

“China is adding close to 700,000 mt/year of toluene capacity in 2017 and coupled with the capacity additions in 2016, that is almost more than 1.3 million mt/year of new toluene supply in the Chinese market over the past 1-2 years. China could increasingly become more self-sufficient in the future, relying less on imports,” a Chinese buyer said.

China added a total of 684,000 mt/year of toluene capacity in 2016 which included Daxie Petrochemical’s 200,000 mt/year plant in Zhejiang province, CNOOC Taizhou Petrochemical’s 230,000 mt/year plant in Taizhou province, Zhuhai Changqian Petrochemical’s 200,000 mt/year plant in Guangdong province and Zhongjie Petrochemical’s 54,000 mt/year plant in Hebei province.

“Domestic prices will continue to drive the Chinese market trend and price direction of the import market (2017) as buyers are increasingly comparing domestic cargo prices with that of import cargoes. When the spread between both prices are wide, themonthly lull.

Demand in the Asian toluene market is expected to be stable to firm in the first half of 2017, with small pockets of surges likely in February amid increased buying activity after the Lunar New Year festivities end-January, industry sources said.

“As Chinese New Year is early (2017) in January, most buyers would have bought sufficient cargoes in December to tie them over until after the holidays, as no one wants their cargo to arrive during the festive period,” a Chinese seller said.

“The months of April-May, ahead of the traditional summer peak gasoline blending season, could also help fuel demand in the first half of the year,” a Northeast Asia seller added.
buyers may just turn to domestic cargoes to meet their needs,” the Chinese buyer added.

China’s estimated total toluene production capacity in 2016 was 11 million mt/year. Based on a year-on-year comparison, the FOB Korea marker gained 3.5% from December 7, 2015, to $630/mt on December 1, 2016, while the CFR China marker rose 1.6% over the same period to $647/mt.

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