

Asia petrochemical outlook

H1 2018

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Contents

Foreword	2
Aromatics	
China's downstream growth to fuel Asia's benzene market in 2018	2
SM supply to be tight amid turnarounds, China antidumping probe	3
Chinese demand to keep caprolactam supported into 2018	4
Toluene to remain oversupplied in 2018 as China ramps up output	5
PX glut looms amid startups in China, growth in Mideast, SE Asia	6
Asian PTA prices to face downward pressure amid overcapacity	7
Oversupply weighs on Asian isomer-MX; supply constraints to underpin OX	8
Asia's MTBE surplus set to increase as new plants start up	9
Olefins	
Ethylene positive, PVC receives support from strong India demand	10
Propylene seen firm on tight supply in Northeast Asia	11
Tight methanol supply in early 2018 to ease on new Q2 startups	11
Asia butadiene faces soft start on higher China production	12
Polymers	
Asian PE to likely weaken amid poor macroeconomics, oversupply	13
China's PP market to firm as environmental crackdown intensifies	14
Asian MEG market to remain bullish	16



FOREWORD

While all trade routes in the petrochemical market have in the past led to China, 2018 is the year when these routes could begin to show signs of slow reversal — leading to the rise of China as a dominant Asian exporter in the next decade.

China's move towards self-sufficiency has long been a topic of conference presentations and white papers, and the last months of 2017 gave ample indications that this moment has finally arrived.

Aromatics imports by China are beginning to dwindle after the startup of new capacities in certain markets. The country — for long the world's largest importer — has begun the slow transition into weaning itself off its addiction to imports, with MTBE and toluene witnessing the first stages in the gradual shift in dynamics.

The Asian styrene market is now bracing for China's possible imposition of antidumping duties on cargoes from South Korea, Taiwan and the US, while for toluene, new domestic startups have seen a petering out of trading activities on a CFR China basis.

New plant startups in China are also setting the stage for a more competitive paraxylene market, even as China's traditional suppliers South Korea, Japan and Southeast Asia now find themselves jostling for room with fresh supply from India and the Middle East.

Asia's olefins and polymers markets face a mixed outlook in the first half of 2018, with China's anti-pollution measures continuing to drive the latter.

Amid typical factors such as turnarounds, tight supply and emerging downstream demand, China's ban on imports of plastic waste for recycling effective January is seen boosting demand for virgin plastics.

Chinese import demand for products such as polyvinyl chloride is also expected to rise as petrochemical operations will likely be affected by the government's ongoing measures to combat pollution.

Ethylene and propylene will be supported by a heavy turnaround schedule in Northeast Asia, as half of Japan's 12 naphtha-fed steam crackers have planned maintenance, resulting in a loss of 3.46 million mt/year ethylene output. An increase in China's acrylonitrile production capacity will add to incremental demand for propylene.

Environmental concerns may also drive India's ethylene demand, as PVC producers are likely to gear towards ethylene-based production as most calcium carbide furnaces are deemed to be not environmentally friendly, amid an expected PVC supply shortfall of 1.5 million mt in 2018.

Butadiene markets face a challenge of new production capacities in China but the startup of new downstream derivatives, such as nitrile rubber, could balance or offset the fresh capacities.

— [Rohan Menon and Clement Choo](#)

Aromatics

CHINA'S DOWNSTREAM GROWTH TO FUEL ASIA'S BENZENE MARKET IN 2018

The rise of downstream capacities in China and its growing appetite for benzene as a feedstock is expected to remain as the main driver of Asia's benzene market in 2018.

But with Asia structurally long in benzene, Northeast Asian sellers will continue to seek out arbitrage opportunities to the US Gulf Coast, even though China has overtaken the USGC as key buyer of Asian benzene this year.

The rush of Chinese consumerism in the last two decades prompted a rapid expansion of local downstream benzene guzzling plants, with new styrene monomer and caprolactam capacities to fuel Chinese benzene demand in 2018.

Next year, China is likely to add close to 1 million mt of incremental demand from the start-up of 1.6 million mt/year of new downstream caprolactam, SM and cyclohexane plants, assuming the new plants start up on time, S&P Global Platts estimates. But some of these new plants may be delayed.

At the same time, existing downstream plants will likely keep runs high or even max out operation rates, on expectations of firm margins — further underpinning China's demand for benzene.

And without any new domestic benzene production coming on stream, Chinese downstream buyers will likely continue to raise their import demand next year, with Chinese trade participants expecting the country's benzene imports to rise 10%-18% to 2.8 million-3 million mt in 2018.

On the other hand, uncertain production rates from non-mainstream plants such as coal-based plants, as a byproduct from steel factories, or extractions from independent refineries can easily impact import demand from the new downstream plants.

According to some market participants, benzene production capacity at independent refineries in Shandong increased to 750,000 mt/year after Sinochem Hongrun started up a 250,000 mt/year unit in August.

But most benzene extraction units are not operating at high rates as it is more profitable to leave benzene in the gasoline blending pool, according to a Chinese trader.

Output from coal-based benzene plants were heard stable so far in 2017, with the average operating rate at about 60%, compared with an average rate of 50%-55% in 2016.

Benzene sellers are also hopeful that spot demand from the USGC can stage a rebound from a lighter downstream maintenance schedule next year, although higher domestic benzene production from increased availability of lighter oil cuts from shale-based feed and firm toluene disproportionate unit margins, can cap the USGC's arbitrage demand.

Can turnarounds help ease supply pressure in Asia?

Without much major scheduled maintenance plans next year, Platts estimates a cut of around 150,178 mt in benzene production during turnarounds in South Korea and Japan next year, with the fall concentrated across the second and third quarters — providing few relief to an oversupplied Asian market.

In face of firmer Chinese demand but a stable supply situation, some sources expect the benzene-naphtha spread to hover at around \$300/mt in 2018, which will prompt producers to maintain high output of benzene.

In addition, TDP makers saw margins surge by nearly threefold from the year before, averaging \$60.12/mt over January-November.

With positive margins for two years running, a Northeast Asian producer noted TDP units would likely maintain full operating rates in the coming year in expectations of suppressed feedstock toluene prices.

— [Genevieve Soong](#)

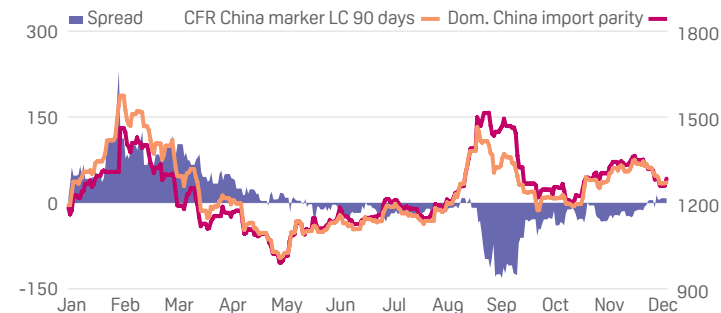
SM SUPPLY TO BE TIGHT AMID TURNAROUNDS, CHINA ANTIDUMPING PROBE

- **Term negotiations for 2018 hampered by uncertainty**
- **Several plants to be shut for maintenance in H1**
- **More US cargoes may go to Europe**

Having put a turbulent year behind them, styrene monomer market participants have entered 2018 with increased trepidation amid a likelihood of China imposing antidumping duties on imports from some countries.

The global SM market is likely to start the year on a bullish note as supply is expected to remain tight amid maintenance at several plants. Downstream, plant operating rates may be cut if feedstock SM prices rise, resulting in negative margins, similar to the situation seen in Q1 this year.

DOMESTIC SM CARGOES PREFERRED OVER IMPORTED CARGOES DUE TO POSSIBLE ADDS (\$/mt)



Source: Platts

EXPECTED ASIAN SM TURNAROUNDS IN H1 2018

Company	Location	Capacity (mt/year)	Timing	Estimated loss (mt)
NS Styrene Monomer	Oita, Japan	Unit no. 1: 190,000	Mar 10, 30 days	15,630
		Unit no. 2: 230,000	End Feb-Apr, 50 days	31,500
GPPC	Tashe, Taiwan	Unit no. 1: 130,000	Feb-Mar, 40 days	14,250
ZRCC	Ningbo, China	620,000	May, 30 days	50,970
Hanwha Total SMI	Daesan, Korea	Unit no. 2: 650,000	Dec 26 - Jan 15, 20 days	26,720
	Merak, Indonesia	Unit no. 1: 100,000	Q1 2018, 30 days	8,220

Data: Industry sources

China's SM demand is expected to rise further in 2018 on anticipated downstream growth of around 5%, which will place the country's consumption at more than 10.7 million mt, industry participants said. On the other hand, China's domestic styrene production expansion continues to lag behind its growing demand, with total capacity expected to rise 9% on the year to 9.25 million/year in 2018.

However, China could find some difficulty in importing material next year due to the ongoing antidumping probe by the Ministry of Commerce into SM imports from South Korea, Taiwan and the US. According to customs data, these countries supplied more than 50% of the 2.57 million mt of SM imported over January-October.

The resulting uncertainty has hampered term import negotiations for 2018 as market participants are unable to reach an agreement on a fair premium. The potential implementation of antidumping duties could also result in South Korean and Taiwanese producers increasing domestic sales and reducing their exports to China. It could also affect USGC volumes that were consistently shipped to Asia this year.

Seeking new markets

Fewer deepsea cargoes could be seen in 2018, especially in Q1, as talks of a possible retrospective tax on US-origin cargoes discouraged traders from taking positions to move USGC SM to Northeast Asia.

USGC producers typically sell to Europe due to geographical proximity. Between January and September this year, the

USGC producers typically sell to Europe due to geographical proximity. Between January and September of 2017, the US exported 144,441 mt of SM to the EU, compared with 280,040 mt in 2016. If China imposes antidumping duties on US SM, it could lead to a surplus in the EU.

Another home for USGC SM would be India as Middle Eastern cargoes are diverted to China. Over January-September, Saudi Arabia supplied 64,955 mt of SM to the EU, compared with 60,105 mt during the same period in 2016.

Market participants still remained bullish about prices in H1 2018 because of the expected supply tightness globally. Some support is expected in Europe as three SM plants are scheduled to undergo maintenance in Q1, taking approximately 25% of capacity offline. Imports are expected to increase during this period to make up for the shortage of domestic supply.

Demand is likely to rise in Asia as well due to scheduled maintenance. Asia is expected to lose around 117,840 mt of SM production in H1 due to maintenance.

Prices in Asia could rise amid increased spot demand in Q1 amid a failure to settle term contracts. Several traders said that prices could peak in February on simultaneous rise in demand from Europe and China restocking ahead of the Lunar New Year.

Sentiment is, however, expected to turn bearish in H2 as supply rises following the end of the maintenance season and several new plants coming online in Asia. China's Anhui Haoyuan is expected to start commercial production at its 260,000 mt/year plant by April, while Sinopec Jingmen's 80,000 mt/year plant will probably startup by the end of 2018, according to trade sources.

In Europe, only two plants are scheduled to shut for maintenance in H2 — LyondellBasell/Covestro's Maasvlakte PO/SM unit and Synthos' Kralupy Czech SM plant.

— *Frank Zeng*

CHINESE DEMAND TO KEEP CAPROLACTAM SUPPORTED INTO 2018

Tight caprolactam supply and increased demand from downstream nylon 6 will keep Asia's caprolactam market supported in the first few months of 2018.

Stronger Chinese buying interest is expected during the pre-Lunar New Year restocking activities that could also lend support to the market.

"December to February is the traditional peak demand season for caprolactam as nylon products, due to the colder weather, are in high demand and it is usually during these

months that caprolactam prices are sky high. After that prices usually tend to fall. It's a cycle, we have seen it for years," a seller said.

The supply tightness in Northeast Asia, arising from several plant maintenance scheduled in the fourth quarter of 2017 and a dearth of deepsea supply from Europe due to shortages in the European market, could also add to the squeeze in the first few months of next year.

"Spot supply is tight as CPDC, Ube Industries and Sumitomo have all scheduled maintenance towards the end of the year [2017] and they are servicing their term contracts obligations. There is hardly spot cargoes available. Even if there is, it is very expensive," a buyer said.

"Even if all these plants restart after maintenance by the end of December, it is too close to January and the pickup in demand season prior to the Lunar New Year. There will not be sufficient cargoes to meet the rise in demand," the buyer added.

New Chinese caprolactam capacities of at least 800,000 mt/year that were added in 2017 had failed to meet the country's burgeoning appetite amid a growing downstream nylon market.

Some easing of the structural supply tightness could come from the startup of Hengyi Petrochemical's 100,000 mt/year No. 1 line at eastern China's Zhejiang province in early 2018 and its 100,000 mt/year No. 2 line by end-2018.

"Many of the new plants this year are not running at full capacity so we have a supply shortage in the market. But if all these new plants start running at full capacities in 2018, then the supply tightness will be eased," a buyer said.

On the other hand, some market participants pointed out that continuous tightness in cyclohexanol supply — particularly in China and India — could lend underlying support to the caprolactam market.

Cyclohexanol is one of the other feedstock besides benzene in the production of caprolactam.

"Most Chinese caprolactam producers have their own cyclohexanol capacities but it is insufficient to meet the entire demand of the market. Japanese and Taiwanese supply is also short as cyclohexanol is also used to produce adipic acid," a Northeast Asian producer said.

"Caprolactam producers are likely to pass on any additional feedstock costs to the buyer so if cyclohexanol supply remains tight, caprolactam prices will also remain high next year," another sell source pointed out.

— *Serena Seng*

TOLUENE TO REMAIN OVERSUPPLIED IN 2018 AS CHINA RAMPS UP OUTPUT

The Asian toluene market looks set to face a supply glut in 2018 as China’s domestic capacity expansion over the past two years curbs its reliance on imports — and may even spur exports, market sources said this week.

China was on track to add 1 million mt of new toluene capacity in 2017, taking its total estimated production capacity to 12 million mt, with another 500,000-600,000 mt slated to come on stream in 2018.

The new capacity in 2018 includes Jingbo Petrochemical’s 120,000 mt/year plant in Shandong province, Sinopec Luoyang Petrochemical’s 100,000 mt/year plant in Henan, Haishunde Petrochemical’s 184,000 mt/year in Zhangzhou and Petro China Hebei’s 150,000-200,000 mt/year plant in Hebei.

“China will begin exporting toluene in 2018; it is inevitable, there is simply not enough demand in the local market for all this additional supply,” one seller said.

“Already there has been attempts to export Chinese toluene to neighboring South Korea and Taiwan, but the export tax at 17% is a hindrance. However, if the supply-demand balance in the local market tilts, then Chinese producers may have to absorb the export tax,” the seller added.

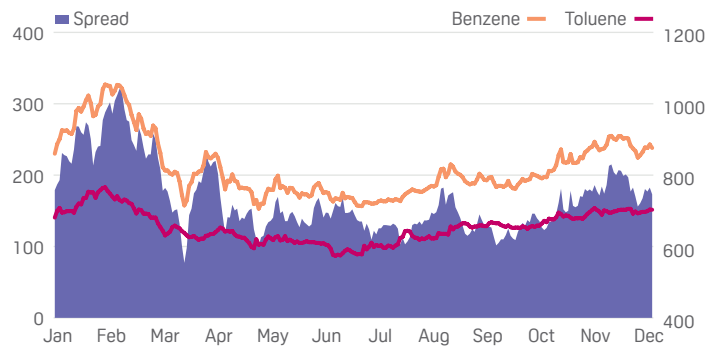
Other market participants were skeptical that Chinese toluene could be exported as the country’s export tax structure would make the cargoes more expensive than competing sources of supply.

These participants expect the excess supply to be fed into the domestic gasoline blending pool instead.

However, with gasoline blending demand not expected to improve markedly in 2018 and alternative blending components such as isomer-mixed xylenes and MTBE widely and more cheaply available, the possibility of surplus toluene being exported cannot be entirely dismissed.

Other market players were banking on the implementation of a consumption tax on imported C9 mixed aromatics to

BENZENE/TOLUENE PRICE SPREADS HITS POSITIVE TERRITORY IN 2017 (\$/mt)



Source: Platts

help support toluene demand, but this was unlikely in the first few months of 2018, a buyer said.

“The market was expecting the C9 mixed aromatics tax to be implemented by December and that could support toluene demand in 2018, but there has not been any news... and it is too late to implement for it to take effect from January 1, 2018,” the buyer added.

What all toluene market participant can agree on is that China’s requirements will be largely met by domestic supply in 2018 and its import demand will remain weak. “Local cargoes are cheaper than imports, supply is ample and there is no room for any big surges in prices in the domestic market,” a second buyer added.

Less focus on CFR China

The shift in Chinese buying patterns of toluene will also mean there will be less focus on CFR China prices.

“Yuan prices will take more importance next year and will dictate where CFR China prices will be; if imported prices are way above local prices, then buyers will simply look to the local market,” the second buyer added.

Already, Chinese buyers have showed less interest in participating in 2018 term contract talks with South Korean and Taiwanese suppliers than in previous years.

“In the past, the Chinese would participate ... to secure a portion of their annual requirements. However, I don’t see any keen Chinese interest at all for 2018,” one seller said. This indicated they were confident domestic supply could meet all of their requirements, he added.

South Korean sellers are expected to reach out to other markets in 2018 in a bid to sell cargoes that cannot be placed in China, including Southeast Asia and India, where prices are generally lower than in China.

“South Korea’s export volume is small, maybe 20,000-30,000 mt/month. If FOB Korea prices remain high in

CHINA NEW TOLUENE PLANTS (mt/year)

Plant	Location	Year	Capacity/year
CNOOC Daxie Petrochemicals No.1 and No.2	Zhejiang	2016-2017	Combined 420,000
Hongrun Petrochemicals	Danshan		
CNOOC Huizhou No.2	Shandong	2017	120,000
CNOOC Huizhou No.1 + No.2	Huizhou	2017	Combined 450,000
Petrochina Yunnan	Kunming	Sep-17	250,000
Sinopec Jinling	Nanjing	Nov-17	310,000 (combined 610,000)
Jingbo Petrochemicals	Shandong	Q1 2018	120,000
Sinopec Luoyang Petrochemicals	Henan	Q1 2018	100,000
Haishunde	Zhangzhou	2018	184,000
Petro China Hebei	Hebei	2018-2019	150,000-200,000

Source: Platts

2018, buyers will find other outlets,” a trader said. “If South Korean cargoes come into Southeast Asia because China won’t buy, then the supply surplus will create price competition in Southeast Asia as regional producers also have cargoes to sell,” the trader added.

Surprise rise in term contract premiums

However, FOB Korea prices could remain firm in the coming year as a few 2018 term contracts have been settled at higher premiums than for 2017, catching most market participants by surprise given the looming supply glut.

Taiwan’s CPC has settled its 2018 term contracts with customers on a formula linked basis to the Platts FOB Korea assessment plus a premium of \$8/mt — \$1/mt higher than its 2017 settlements.

The Philippines Petron has settled its 2018 term contracts at a premium of plus \$9/mt to the Platts FOB Korea assessment.

“I don’t know how the buyers of these term cargoes intend to sell off their term allocations, as the majority are traders. Their end-users are not going to pay a hefty premium when spot cargoes could be cheaper in their respective domestic markets,” a second trader said.

Thai 2018 term contracts are being discussed at premiums of \$7-\$9/mt to the Platts FOB Korea assessment, although buyers are targeting plus \$3/mt FOB Korea. “Even if the alpha is FOB Korea minus \$5/mt, freight from Thailand to China is more than \$30/mt — even at FOB Korea plus \$25/mt FOB Korea, do you think there will be Chinese buyers?” a South Korean producer said.

Other 2018 term contracts remain under discussion at time of publication, with the benchmark domestic South Korea term contract seen likely to be settled at plus \$3-\$5/mt FOB Korea, South Korean market sources said.

— *Serena Seng*

PX GLUT LOOMS AMID STARTUPS IN CHINA, GROWTH IN MIDEAST, SE ASIA

- **Delay in PX startups to provide short-term respite in Q1**
- **All agree glut is coming; only issue is when**

The Asian paraxylene market, and by extension the global PX market, will likely undergo a sea change in 2018 as key buyer China becomes increasingly self-sufficient due to a flurry of domestic PX plant startups just as production increases in the Middle East and Southeast Asia.

A gradual lengthening of the market has already begun, evidenced by the decline in the PX CFR Taiwan/China PX-CFR Japan naphtha spread, which was down 9.13% year on year at \$360.64/mt December 12, S&P Global Platts data showed.

For long-term contracts, the current discount of \$3/mt to the average of the monthly Asian Contract Price and the monthly average of the daily spot assessments, at only 50 cents/mt lower than 2017’s discount at \$2.50/mt, also points to lengthening supply.

“It’s a matter of when the market’s going to be firmly very long when Chinese PTA makers start operating their own PX plants,” said a trader.

“Everyone knows that change is on the horizon — they’re just disagreeing on where the horizon is.”

For the first quarter of 2018 at least, the PX balance, while still long, is no longer seen as severe as had been forecast earlier.

This is due to delays in the startups of the Nghi Son Petrochemical 680,000 mt/year aromatics plant in Vietnam and the 1.34 million mt/year Rabigh project in Saudi Arabia. Nghi Son is now slated to start up at the end of Q1, and the first shipments from Rabigh are expected to set sail by the end of February.

This somewhat mitigates the 36 cargoes or 180,000 mt of PX that India’s ONGC Mangalore Petrochemicals’ Ltd. is selling in Q1 as the startup of its neighbor JBF Petrochemicals’ 1.25 million mt/year PTA plant, to which OMPL is contracted to sell PX, remains in doubt for the first half of 2018, according to industry players.

Also in producers’ favor is the restart of idled PTA plants in China, the largest of which is Fuhua Gulei’s two 1.5 million mt/year lines at Gulei, and the stabilization of operations at Huabin Petrochemical’s 1.4 million mt/year PTA plant at Ningbo, which restarted in November.

However, Asian PTA market sources doubted the return of idled PTA plants to operation could absorb all the looming PX glut.

“Setting up a PTA plant of a capacity of 2.2 million mt/year entails an investment of approximately half a billion dollars. Since the management of these previously idled plants has changed, it is very likely that the new owners purchased the plant at a fraction of the original cost, and they would be less inclined to continue to operate the plant when the market turns bad. They’d rather cut their losses and sell the plant, or at the very least, shut down,” an end-user source in Thailand said.

In addition, a trader said Indonesia’s Trans Pacific Petrochemical Indotama plans to restart its 550,000 mt/year PX plant at Tuban in East Java by Q2, although negotiations for this are still at an early stage. “The

volumes will likely be heading to Fuhua Gulei, as it makes logistical sense as well,” the trader said.

Overseas PTA demand remains cause for concern

Further ahead of Q1, traders are focusing on the potential restart of Artlant PTA SA's 700,000 mt/year PTA plant in Portugal some time in 2018 after it was purchased by Thailand's Indorama Ventures Public Co. Ltd. in November.

The idling of that plant, despite several restarts since January 2014, has paved the way for South Korean PTA to make its way to Europe to cover the shortfall.

However, South Korean PTA exports to Europe excluding Turkey have already fallen 11.2% year on year to 713,597 mt over January–November, when they comprised 40.4% of South Korea's total exports.

While the restart of Artlant would create more demand for PX, the impact would be more likely felt in Europe than Asia, a trader said.

“Europe as a whole has exported perhaps two PX cargoes to China every quarter this year, which is a drop in the ocean in the Asian market, but completely different in the European context. Once those cargoes are redirected to Artlant — and they will be — it's going to have more of an impact on PTA than PX,” the trader said.

China's latest import data shows imports from the EU accounted for just 29,749 mt over January–October this year. This is far less than the demand the restart of Artlant at a 100% operating rate would create, of an additional 7–8 cargoes/month of PX.

The second situation outside Asia under watch is what could happen in the US now that leading polyethylene terephthalate manufacturer Mossi and Ghisolfi (M&G) has filed for bankruptcy, suspending further construction on a new integrated PET resin plant in Corpus Christi, Texas.

“Alpek, the Mexican company that was supplying PTA to the M&G PET plants in the Americas, cut off supply to them, and while the polyester chain markets in the Americas are a microcosm of the Asian markets, it means that there will be less consumption of PX for a time at least, until someone

else takes over M&G's assets and potentially restarts operations,” said a trader who imports PX from the US.

Fewer PX turnarounds in 2018

With most aromatics plant turnarounds following a biennial cycle and many PX producers having scheduled their turnarounds in 2017, next year will only see a production loss of approximately 980,000 mt of PX due to scheduled maintenance, down from 1.13 million mt in 2017.

The bulk of the turnarounds are scheduled in the second quarter, traditionally the turnaround season, with 580,000 mt of PX production lost over the first half of the year.

Notable among these shutdowns in Northeast Asia are JXTG Nippon's Oita and Kashima units in Japan in May, South Korea's Ulsan Aromatics' 1 million mt/year capacity for a month at end May and Sichuan Petrochemical in Pengzhou, China at the end of Q1 on the back of a refinery turnaround.

— [Rohan Menon](#)

ASIAN PTA PRICES TO FACE DOWNWARD PRESSURE AMID OVERCAPACITY

Asian purified terephthalate acid prices might face downward pressure in the first half of 2018 due to overcapacity. There was a surplus of around 20 million mt/year against Asia's net consumption of around 67 million mt/year, China accounting for almost half of that, sources said.

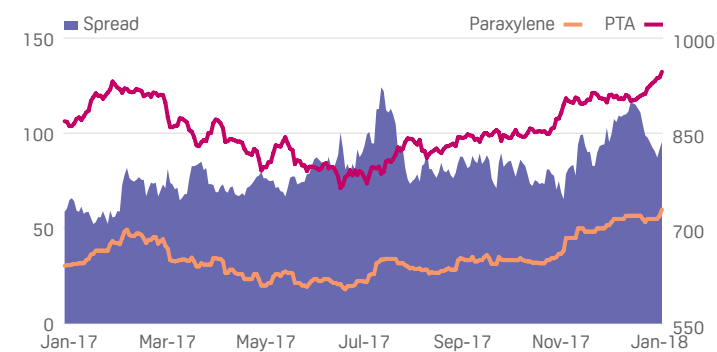
In 2018, close to 4 million mt/year of new capacity is expected to be added. Tongkun 2's 2.5 million mt/year PTA plant in Zhejiang, China, and JBF's 1.2 million mt/year PTA unit in Mangalore, India, will startup next year. The full impact of some of the new capacity coming online by the end of 2017, such as Taiwan's Oriental Petrochemical, would be seen only in 2018, sources said.

The yuan is expected to continue to remain weak in 2018 and this would also lead to lower imports, traders said.

Paraxylene-PTA margins were expected to be at least at breakeven levels in H1 2018 with both markets expected to remain bearish, sources said. Currently, PX-PTA margins are flat, using a conversion factor of 0.66 plus \$90/mt as costs, using S&P Global Platts data.

Next year's imports, or actually “one-day trip” or “u turn” offers of domestically produced PTA as imported cargoes, are expected to remain constant from previous years, in line with GDP levels, sources said. These are actually bonded warehouse cargoes, for which local producers did not pay VAT or import duty as they are made from imported PX feedstock. The actual volume of spot imports is low as Northeast Asian producers outside China prefer to export to the Middle East and Europe where the margins are higher, market sources said.

WIDENING MARGINS FOR PTA PRODUCERS (\$/mt)



Source: Platts

Also, South Korean, Japanese and Taiwanese producers link PTA prices to PX feedstock, which Chinese buyers disagree with, sources said.

Downstream demand for polyester fiber, filament yarn and PET was also increasing in line with GDP growth in India and China thanks to a growing middle class with higher disposable income, sources said.

Polyester staple fiber plants were operating at between 40% and 80% of capacity in 2017, and run rates were expected to remain steady around these levels in 2018 as well because of the rising popularity of synthetic fiber compared with cotton, sources said. Cotton's susceptibility to the vagaries of weather, poor scalability and less immunity to bacterial infections make it less attractive for fabrics, they added.

— [Heng Hui](#)

OVERSUPPLY WEIGHS ON ASIAN ISOMER-MX; SUPPLY CONSTRAINTS TO UNDERPIN OX

- **More MX capacity to start up in Japan**
- **Talk of Chinese tax on mixed aromatics persists**

Asia's isomer-grade mixed xylene market is expected to strain under the weight of incremental volumes streaming in, while solvent-grade MX, as well as downstream orthoxylene would find support from supply constraints in 2018.

More isomer-MX capacity is set to come online early on in 2018 in Japan, where Idemitsu Kosan plans to start up a new unit at its Aichi refinery, adding 170,000 mt/year of isomer-MX supply to Japan's production.

This comes on top of more than 1 million mt/year of new capacity started up in China during the second half of 2017 by Sinopec, CNOOC, PetroChina and Sinochem, where the full impact of new supply from these plants would likely only be felt in 2018 as most of them started late in 2017.

INCREASING ISO-MX SUPPLY AFFECTS MARGINS OF MX, PX (\$/mt)



Source: Platts

Fundamentals will also take a hit as Northeast Asia's largest buyer, Taiwanese Formosa Chemicals and Fibre Corp., heads into prolonged partial maintenance in 2018.

FCFC has already cut its isomer-MX term volumes for 2018. This, together with new supply from China and Japan, was reflected in lower term differentials concluded for 2018.

FCFC, which uses isomer-MX as feedstock for paraxylene and OX production, plans to shut its No. 3 unit at Mailiao for two to three weeks in the second quarter, freeing up 20,000-30,000 mt of isomer-MX. This is followed by the shutdown of its No. 2 unit at Mailiao for 45 days in Q3, but impact from the planned maintenance of this unit is unclear.

The company typically buys around 75,000 mt/month of isomer-MX from external sources.

Taiwan's CPC sold 2018 term isomer-MX at a discount of \$11-\$13/mt to the FOB Korea benchmark, down sharply from a single-digit premium for 2017. Following that, 2018 term contracts on both CFR Taiwan and FOB Korea basis were concluded at levels \$2-\$3/mt lower than the current term year.

The market though, may see some respite mid-year from Japanese MX producer Taiyo Oil's shutting its aromatics plant at Kikuma for about three months of maintenance, likely over June-August, which would potentially remove around 170,000 mt from the supply pool over the peak gasoline demand season.

But downside could return later in the year from South Korea as another major isomer-MX end-user Lotte Chemical plans to shut both its PX plants and related OX and meta-xylene units at Ulsan for over a month of planned maintenance from October.

Sources said the maintenance could cause a glut in the market as Lotte Chemical typically buys around 100,000 mt/month of isomer-MX for these units — more than offsetting the loss of 31,000 mt from CPC's planned shutdown of its Linyuan plant over October-November.

On a smaller scale, a planned turnaround at Mitsubishi Gas Chemical's Mizushima aromatics plant in Q1 could knock out 30,000 mt of isomer-MX demand, in contrast to the 24,000 mt loss in supply from the February-March turnaround at Showa Shell's toluene disproportionation unit at Yokkaichi.

China's mixed aromatics consumption tax

Eyes are also on whether China — a key market with increasing PX capacity and rising gasoline blendstock demand — will eventually go ahead with imposing a consumption tax on mixed aromatics imports in 2018.

The tax, if implemented, is expected to boost demand for other gasoline blendstocks such as isomer-MX.

But considering the new MX capacities, there could be limited support for MX imports even if the consumption tax is imposed.

Also, if China goes ahead with levying the tax, this could have a negative impact on solvent-grade mixed xylenes, as solvent-MX and mixed aromatics share the same import code and solvent-MX could also be hit by the same tax, sources have said.

Meanwhile, fundamentals for solvent-MX were seen as little changed in 2018, and likely underpinned by limited supply due to the use of lighter steam cracker feeds, according to producers.

Downstream, OX is expected to remain supported in H1 2018 on the back of tighter supply due to producers' choice to produce more PX, as margins for PX remain more favorable than OX, sources said, on top of turnarounds in Japan and Taiwan.

— *Gustav Holmvik and Sunitha Katna*

ASIA'S MTBE SURPLUS SET TO INCREASE AS NEW PLANTS START UP

The Asian MTBE market is expected to see even longer supply in 2018, with new plant startups and expansions set to exacerbate an already flooded market, market participants said.

In addition, regional demand for MTBE is set to fall if China pares back its import requirements, although the country's demand outlook for 2018 remains a wild card for the industry, sources said.

More MTBE supply is expected to come online in South Korea in 2018, with S-Oil slated to start up its 370,000 mt/year MTBE expansion by the end of the second quarter.

This will potentially displace some of the country's import volumes and even prompt it to export to its neighbors in Northeast Asia, putting it in direct competition with major exporters in Southeast Asia and the Middle East.

Although China remains a potential outlet, sellers will also have to compete with China's increasing domestic production.

Sinochem Quanzhou is slated to start up its 200,000 mt/year MTBE capacity in the new year, taking China's total MTBE production capacity to around 8 million mt/year and making it increasingly self-reliant.

However an MTBE market source in China said the new domestic capacity would have a lower production cost than smaller MTBE producers in the country's south and

could push some out of them out of business, potentially increasing demand for MTBE in that region.

Increased domestic supply could also displace imports from the Middle East and Southeast Asia and give rise to intra-Southeast Asia trade flows.

Some market participants expect the volume of Southeast Asian MTBE flowing into China to be halved in 2018 from 2017, while the total MTBE import volume into China is expected to fall 30% year on year to 300,000 mt.

However, most market players believe the new startups will not transform China into a net exporter of MTBE just yet, and the country will continue to import some cargoes to cover its domestic blending demand in 2018, but with preference for tax-exempt material.

Alternatives to lose favor

The gradual phasing in of GBV gasoline standards across China by December 31, 2017, which are equivalent to Euro 5 standards, will also eliminate the usage of many alternative gasoline blendstocks and support demand for MTBE in China, market participants said.

Another factor that could impact blending demand for MTBE is a delay in the introduction of a consumption tax on C9 mixed aromatics in China, which is typically a cheaper alternative for blenders.

The proposed Yuan 1,800/mt consumption tax on C9 mixed aromatics will likely boost demand for alternative gasoline blendstocks such as MTBE to avoid tax payments.

According to Chinese sources, the earliest the consumption tax could now be implemented is the fourth quarter of 2018. Until then, cheaper deepsea C9 mixed aromatics will continue to stream into China and potentially dampen domestic blending demand for MTBE.

Another notional factor that could impact China's demand for MTBE further ahead are plans to roll out the use of E10, or 10% bioethanol-blended gasoline nationally by 2020, with trials to start in 2018.

This comes on the heels of a renewed effort to promote the nation's fledgling biofuels industry and, if successfully implemented, would reduce MTBE demand for gasoline blending.

Supply glut looms downstream for mma

Meanwhile, new downstream methyl methacrylate plants will likely provide some demand for MTBE in 2018, at least in the short term.

Petro Rabigh's new 90,000 mt/year MMA plant and Saudi Methacrylates Company's 250,000 mt/year MMA plant in Saudi Arabia are both due to come on stream by the end of 2017.

However, market participants expecting the overall MMA market to soften due to the resulting supply glut, and this could potentially affect run rates at existing MMA plants and in turn reduce their demand for MTBE.

To help balance the market, several sources expect MMA plant operating rates in 2018 be average 90% in China and less than 70% elsewhere in Asia in a bid to reduce the surplus.

MMA producers could also find some relief during turnaround season in the third quarter of 2018, when Singapore Methyl Methacrylate plans to shut its 53,000 mt/year No.1 MMA unit at Pulau Sakra in July for scheduled maintenance.

— [Genevieve Soong and Heng Hui](#)

Olefins

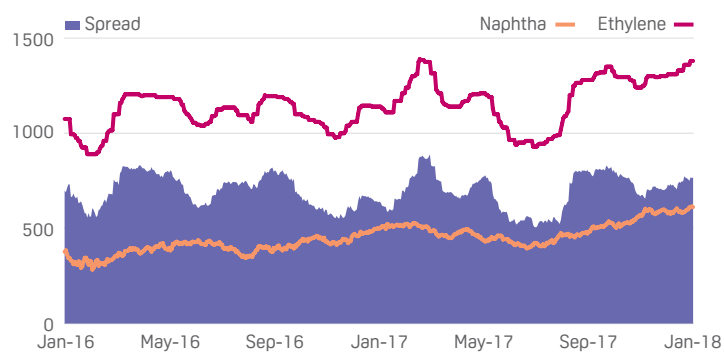
ETHYLENE POSITIVE, PVC RECEIVES SUPPORT FROM STRONG INDIA DEMAND

Asian steam cracker operators are likely to see positive ethylene margins in the first half of 2018 as well with persistent inflow of US deepsea cargoes offset by a loss in capacity due to heavy cracker maintenance in the region, market sources said.

Global ethylene prices are expected to weaken, however, in 2018 following steam cracker capacity expansion in the US Gulf Coast leading to an increase in exports. The US Gulf Coast is a regular supplier of ethylene to Asia. But several sources said that the USGC would not be able to increase export volumes significantly in 2018 due to logistics.

There is one ethylene export terminal in the USGC with an export capacity of 300,000 mt. US ethylene exports were estimated to hit 200,000 mt in 2017, and the volume was expected to be similar in 2018, the sources added.

ASIAN ETHYLENE-NAPHTHA PRICE SPREAD TO REMAIN WIDE IN H1 2018 (\$/mt)



Source: Platts

A heavy turnaround schedule in Japan during H1 is expected to provide support to the Asian ethylene market. Six of 12 naphtha-fed stream crackers in Japan will undergo scheduled maintenance, taking approximately 3.46 million mt/year of ethylene production capacity offline, accounting for 53% of the country's total ethylene production.

The steam crackers not shut for maintenance were likely to maintain high operating rates, especially in H1, amid high profit margins, a trader said, adding that the ethylene-naphtha spread was expected to remain above \$500/mt, compared with the breakeven level of \$350/mt. According to S&P Global Platts, the ethylene-naphtha spread averaged \$692.89/mt over January–November 2017.

More support is expected from lower operations of other ethylene production plants such as methanol-to-olefins units. MTO plants are likely to reduce run rates amid narrow margins due to high feedstock methanol prices. Lower production will possibly give rise to pockets of spot demand, supporting spot ethylene prices.

Support for ethylene would also come from stronger downstream demand. Market participants said that styrene monomer is expected to remain strong in 2018. Another downstream product PVC is also expected to see high production amid firm regional demand.

India PVC demand to rebound

Asian PVC market would likely remain firm in H1 2018, mainly due to Indian demand and tighter supply amid lower operations of Chinese carbide-based PVC plants on stricter environmental regulations, market sources said.

India's appetite would remain strong next year with PVC deficit forecast at around 1.5 million mt/year, market participants said. As India has no plan to expand its PVC capacity in 2018, end-users will have to continue to rely on imports. While Indian imports in 2017 had been interrupted by taxation changes, an Asian PVC producer said that demand was expected to rebound in 2018.

However, it is difficult to say whether PVC spot prices will rise further in H1 2018. Some market sources said that record high caustic soda prices would keep integrated vinyls plants operating at high rates, but this would also lead to higher ethylene-based PVC production, adding to the already high inventory. This could drag down prices in H1 as producers might reduce their offers to sell excess volumes.

Meanwhile, Asian ethylene dichloride is likely to remain bearish in H1, amid ample supply. The Asian EDC market was under pressure in 2017 amid high plant operating rates due to record high caustic soda prices.

— [Fumiko Dobashi](#)

PROPYLENE SEEN FIRM ON TIGHT SUPPLY IN NORTHEAST ASIA

Supply in Asia's propylene market is likely to tighten in the first half of 2018 as naphtha-fed steam crackers with at least 2.2 million mt/year of combined capacity are scheduled to shut for maintenance in the region.

The biggest impact will be in Japan, where six of the 12 naphtha-fed steam crackers will shut for various periods.

In addition, JXTG Nippon Oil and Energy Corp. will shut the fluid catalytic cracker at its refinery in Marifu, Yamaguchi prefecture, in mid-February, which can produce 60,000 mt/year of propylene.

In South Korea, Yeochun Naphtha Cracking Center or YNCC will shut its No. 2 naphtha-fed steam cracker for two weeks around February-March, which can produce 270,000 mt/year of propylene. Taekwang Industrial may shut its 300,000 mt/year propane dehydrogenation plant in Ulsan around late June or early July for around one month.

Meanwhile, the new propylene capacities coming on stream in 2018 may not be sufficient to fill the supply shortfall.

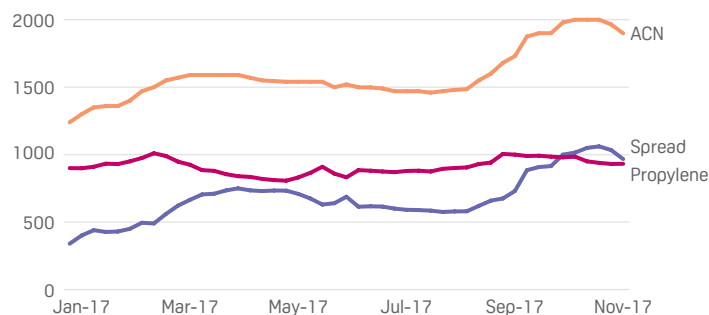
Malaysia's Lotte Chemical Titan is expected to start up its new catalytic cracker in Pasir Gudang before end June, which will increase the company's propylene production capacity by 170,000 mt/year.

In China, Nanjing Chengzhi Yongqing Energy Technology is building a 600,000 mt/year MTO plant that is expected to be completed by the end of 2018. The volume of its propylene output was not known at time of writing.

However, as a result of the supply tightness, industry sources said import prices for propylene in China could remain beyond \$1,000/mt CFR China in H1 2018, a level not seen since September 2017.

Other sources said cargoes from Southeast Asia — which has no turnarounds slated for H1 2018 — could meet some of the unmet demand in Northeast Asia, but not all of it.

ASIAN ACN'S 2017 BULL RUN HALTS AT YEAR END AS DEMAND FALLS (\$/mt)



Source: Platts

Healthy demand seen from acrylonitrile

Downstream, the acrylonitrile market in Asia is also expected to see demand growth outweigh supply in 2018, which could result in even more demand for feedstock propylene.

Shandong Haili Chemical's new 130,000 mt/year ACN plant is expected to commence operations in H1, with 50,000 mt/year of the ACN produced retained for use in its downstream acrylonitrile-butadiene-styrene plant, leaving about 80,000 mt/year for sale in the commercial market.

This could increase the total ACN supply in China to approximately 2 million/mt/year.

On the other hand, Jiangsu Sailboat Petrochemical's plant in Lianyungang, which can produce 260,000 mt/year of ACN, is expected to shut for turnaround over April-May.

During the shutdown, ACN supply in China is expected to be lean as it will coincide with seasonal peak demand for key derivative acrylic fiber, which will likely trigger firmer buying interest for ACN.

Moreover, positive growth in another key downstream market, ABS, in 2018 is expected to support strong ACN prices, which in turn will increase requirements for propylene further upstream.

— [Sunitha Katna](#)

TIGHT METHANOL SUPPLY IN EARLY 2018 TO EASE ON NEW Q2 STARTUPS

Asian methanol prices are expected to be supported by tight supply in the first quarter of 2018, before giving way to US- and Iran-origin material, sources said at the International Methanol Producers and Consumers Association, or IMPCA, conference in November 2017.

Industry sources anticipate seasonal supply to be tight during the winter months of January and February, when natural gas is typically used for heating in Iran and China.

They added that March 2018 could witness a steep price correction, the way it happened in 2016.

"Looking at the price history, a similar trend looks to be developing and importers don't want to be caught if history repeats itself," an international trader said.

The supply is expected to expand in Q2 with the start of US-based Natgasoline's (OCI) 1.75 million mt/year methanol unit in Beaumont in late Q1. The plant was initially due to open in 2017 but suffered delays due to Hurricane Harvey, sources said.

Iran — which accounted for China's 32% of total imports over Q1-Q3 2017, up 3% on the year — is poised to increase its market share in 2018 with the start of two major methanol projects. The 2.55 million mt/year Kaveh project and 1.65 million mt/year Marjan project, which were scheduled to start their production in 2017, are now expected to start in mid-2018, sources said.

“Once the new plants are online, we will definitely move into a more oversupplied situation. It is just a question of when and what cargoes from other regions are displaced,” a source from Methanex said.

Market participants noted that China has become less dependent on imported methanol after building up domestic production capacity, a trend which is expected to continue into 2018. The overall 2017 methanol imports have already contracted, with January-October imports down 8% year on year, according to China Customs.

MTO demand to take hit as profits plunge

Falling methanol-to-olefin margin is likely to cause a demand drop in late Q1. Industry sources expect a conservative 3%-5% increase in year-on-year demand, lower than China's GDP, questioning MTO's ability to continue as the leading buyers of imported methanol.

MTO-linked polypropylene margins were negative in 2017, estimated at an average of minus \$106/mt in Q1-Q3 2017, S&P Global Platts data showed. MTO-linked polyethylene margins fared slightly better, estimated at an average of \$10/mt. The situation worsened in Q4 2017 when methanol prices rose to a more-than-three-and-a-half-year high of \$411/mt on December 15. MTO-linked PP margin and MTO-linked PE margin further contracted to an estimated average of minus \$252/mt and minus \$88/mt, respectively, for H1 December.

MTOs accounted for around 60-70% of China's import volume in 2017, according to industry sources. With declining profit margins, some buyers, instead of buying, sold their methanol inventories at domestic ports.

China's Fude (Changzhou) Energy shut its 330,000 mt/year plant in Q2 2017 due to poor margins, according to a source close to the company. The plant is expected to restart in mid-2018. China's Zhejiang Xingxing New Energy also shut its 1.8 million mt/year methanol-consuming MTO plant from November 21 through December 14 2017, and during the shutdown period, they sold their inventories at the peak price levels.

Notably, there were some exceptions: MTO plants with more profitably integrated downstream products — such as acrylonitrile and methyl methacrylate — were heard to be in the black.

Though the upcoming MTO plants in China do suggest potential growth in local methanol demand, they may not start on time due to recent lack of profitability, sources said.

Jiutai Energy's 600,000 mt/year olefin plant in Ordos, which was initially slated for a 2017 opening, is now scheduled to start in H2 2018; while Jilin Connell's 300,000 mt/year olefin plant in Jilin plans to start its operations in 2018. It was earlier scheduled to start in 2017.

Meanwhile, downstream demand from traditional end-users is expected to remain stable in 2018, with operating rates to remain largely unchanged from 2017.

Chinese formaldehyde plants operated at an average capacity of 30-40% in H2 2017, DME plants at 20%-30%, and MTBE plants at 40%-60%, according to the sources.

“Any improvement in demand will come from the MTOs in China,” an international trader said, citing a lack of growth in demand from traditional end-users.

— *Desiree Quah*

ASIA BUTADIENE FACES SOFT START ON HIGHER CHINA PRODUCTION

Asian butadiene markets are expected to be soft to stable in the first six months of 2018 amid new production capacity in China, downstream derivative plant startups and a move to support natural rubber prices.

The additional Chinese capacity includes plants started up by Jiangsu Sailboat Petrochemical, or Jiangsu Shenghong, and China National Bluestar.

The former brought on stream a 100,000 mt/year plant based on butane dehydrogenation at Lianyungang in East China, while the latter started up a 50,000 mt/year plant at Puyang city in Henan province that uses the crude C4 extraction process.

The two plants began commercial operations over the fourth quarter of 2017, and their entry into the supply chain coincided with surplus production from Sinopec's Qilu Petrochemical.

On October 16, Qilu shut a 100,000 mt/year styrene-butadiene rubber line at Zibo as it was unable to meet government pollution standards. The line is expected to be shut until either February or April 2018.

As such, captive production from Qilu's 164,000 mt/year butadiene extraction unit at the same location was freed up, in addition to what Qilu was taking from Sinopec's supply chain.

An estimated 2,000-4,000 mt of butadiene was made available from Sinopec, market sources said, adding that a portion of that surplus was exported.

A further production boost will come from CNOOC and Shell Petrochemicals Co. Ltd., which will start up a 165,000 mt/year butadiene unit that falls under its Phase 2 expansion plan. The CSPC unit is expected to come on line in March 2018.

But the production will be absorbed within the country itself, as China is expected to bring at least 160,000 mt/year of fresh nitrile butadiene rubber production on line over 2018 via NBR plants operated by Sinopec-Sibur, Shenhua Chemical, Bluestar Petrochemical and Sinopec Anqing.

Downstream startups to tighten spot supply

Outside of China, spot butadiene supply is expected to be tighter in H1 2018 as producers divert their output for captive use or to new synthetic rubber makers.

For instance, in South Korea, Lotte Versalis Elastomers in Q4 started up its new elastomers complex at Yeosu, which has a designed production capacity of 200,000 mt/year of butadiene and ethylene propylene-derived products.

Also, the 50:50 joint venture between South Korea's Lotte Chemical and Italy's Versalis plans to bring styrene-isoprene-styrene and styrene-butadiene-styrene production lines totaling 50,000 mt/year on stream in early 2018. Feedstock will be supplied from Lotte's 130,000 mt/year butadiene extraction unit at Yeosu.

Elsewhere, Synthetic Rubber Indonesia, a joint venture between Chandra Asri Petrochemical and tire maker Michelin, is expected to start operating a new 120,000 mt/year solution styrene-butadiene rubber plant at Cilegon as early as Q1 2018.

The SSBR plant will obtain its butadiene feedstock from Chandra's subsidiary, Petrokimia Butadiene Indonesia, which operates a 100,000 mt/year unit at the same location.

But Petrokimia Butadiene may be able to offer spot parcels as Chandra Asri plans to complete a 37,000 mt/year expansion program for its butadiene extraction unit in Q2 2018.

Demand from Japan is expected to be firm in H1 2018 when domestic crude C4 production is reduced during the planned maintenance shutdown of three naphtha-fed steam crackers.

FRESH CHINESE BUTADIENE PRODUCTION WEIGHS ON PRICES

Company	Production capacity (mt/year)	Start up
Jiangsu Sailboat	100,000	Nov 2017
China National Bluestar	50,000	Nov 2017
Shenhua Ningmei	65,000	Dec 2017
CNOOC-Shell Petrochemical	165,000	Mar 2018
Jiutai Energy	60,000	H1 2018
Nanjing Chengzhi Yongqing Energy Technology	100,000	end 2018
Shandong Kenli	100,000	TBC

Source: Platts

Over March-April, Showa Denko plans to shut its steam cracker at Oita, while Tosoh Corp. shuts its cracker at Yokkaichi. Keiyo Ethylene also plans to shut its Chiba steam cracker over May-June.

Natural rubber support

Early in 2018, volatility in natural rubber markets in Asia are expected to affect their synthetic rubber counterparts, as major natural rubber producers take steps to support weak prices.

Typically, natural rubber prices serve as a guide for synthetic rubber prices, an SBR producer said.

From December 22, 2017, Thailand, Indonesia and Malaysia — which account for 66% of global natural rubber production — will cut their exports by 350,000 mt, the International Rubber Consortium said. The cuts will be implemented from December 22, 2017 until March 31, 2018. In 2016, the three countries cut exports by 700,000 mt.

"... expecting the upward movement of butadiene, natural rubber and synthetic rubber in that order," another SBR producer said, commenting on Irco's plan.

Annually, Thailand produces about 4.1 million mt of natural rubber, followed by Indonesia with 3.1 million mt and Malaysia with 720,000 mt, against global production of 12.4 million mt, data from the International Rubber Study Group in Singapore showed.

The Rubber Authority of Thailand had attributed the weakness in H2 2017 to oversupply and slowing demand from China, the US and Japan.

As such, butadiene markets are expected to face downward pressure in the early six months of 2018, but find stable ground as new downstream derivative plants start up while the natural rubber industry attempts to help boost the market.

— [Clement Choo](#)

Polymers

ASIAN PE TO LIKELY WEAKEN AMID POOR MACROECONOMICS, OVERSUPPLY

Incremental supply from up to 3 million mt/year of new polyethylene capacity amid poor macroeconomics is likely to weaken the Asian market and redraw trade flows in 2018.

China alone will see the startup of 1 million mt/year of new capacity in just the first quarter of 2018. This is on top of a few greenfield plants in Asia and the US which started up

in late 2017 that will push additional capacity to up to 3 million mt/year in 2018. However, the new units are unlikely to run at full capacity in their first year of operations, according to industry observers.

Among the Q1 2018 startups in China are: CSPC's 300,000 mt/year linear low density polyethylene and 400,000 mt/year high density polyethylene units, as well as Qinghai Damei's new 300,000 mt/year HDPE/LLDPE swing plant.

Asia, together with South America, are also target markets for around 2 million mt/year of shale-based new US PE capacity set to hit the market over end-2017 and 2018. PE products from the US are unable to be diverted to Europe because imported virgin material cannot be colored or compounded in Europe under EU regulations.

But with new plants starting up in China, Asia's key importer is seen by market sources as being unable to fully absorb the incremental supply as its overall PE imports may even decrease in 2018 from higher domestic production. India as well may start to become self-sufficient as new plants that were started up in 2017 stabilize production.

On the demand side, while there will be more environmental constraints in China in 2018, pollution controls involving the shutdown or relocation of Chinese end-user plants are unlikely to fully depress overall demand in the near term, as most small converters lack funding to relocate. At the same time, China's ban on scrap plastics from January 1, 2018 may increase its virgin demand.

Commodity PE grade demand will be increasingly met by new plants in China, India and Iran, while other plants focus on more specialized grades. Asia's average per capita growth is expected to grow to 6-7 kg at an average annual projected growth rate of 6%, S&P Global Platts Analytics data showed.

Overall, average demand growth in 2018 is seen at GDP growth levels, although the pace is faster than the GDP growth rate for developing countries such as China and

INTEGRATED NAPHTHA-PE MARGINS TO REMAIN HEALTHY IN 2018 (\$/mt)



Source: Platts

India, most sources agreed. Demand will be strong, and will primarily come from the automobile and construction sectors. PE consumption from packaging may be weak as converters said their margins were squeezed by low end-use prices and high PE resin costs.

Cross-regional trade flows limited

Trade flows are set to change as more Middle Eastern PE cargoes are sold within the region instead of exported, while free trade agreements will keep supply from ASEAN member countries within the ASEAN region.

India's exports to China will rise with the ramping up of Reliance Industries Limited's new PE complex as the country will become self-sufficient, India-based traders said.

Further ahead, China's One Belt, One Road policy will likely move polymer resin production from eastern China to inland provinces and to Asian countries where labor is comparatively cheaper, sources said. Low value manufacturing will be moved to the other less developed countries along the One Belt, One Road route, and the finished goods then imported back to China or sold in the domestic markets, traders said.

Currently most of the resin imports land in East China for resin processing, China-based sources said. Domestically within China, labor-intensive plastic processor industries may migrate to China's western provinces, away from eastern China where rising wage costs pose a challenge.

New PE derivatives converter hubs such as Indochina inland China are expected to import more resin for manufacturing. Landlocked countries will contribute to polymer demand going forward, sources said.

— Heng Hui

CHINA'S PP MARKET TO FIRM AS ENVIRONMENTAL CRACKDOWN INTENSIFIES

China's polypropylene prices look to remain firm until at least the Lunar New Year in mid-February as a recycled scrap plastics ban took effect amid a wide-ranging environmental crackdown, industry sources said.

The ban on the import of scrap plastic, which began January, will force Chinese recycling plants to shutter or relocate, sharply decreasing the availability of recycled resin and boosting demand for imported virgin material, industry sources said.

China imported an estimated 700,000 mt of PP scrap and about 7 million mt of scrap plastic in total in 2017, according to UN Comtrade data and industry sources.

The toughening enforcement of environmental regulations by the Chinese government will likely reduce the operating

rates of coal-to-olefin capacities and dampen the pace of new startups, industry sources said.

“After the 19th Congress, the government has put increased pressure on pollution reduction, which could cause new plants to be postponed,” said a source at a major domestic producer.

About 1.76 million mt of new PP capacity is expected to start up in 2018. Three expansions are slated to start up in the first half of the year: Yunnan Yuntianhua Group’s 150,000 mt/year unit, Hebei Haiwai’s 200,000 mt/year unit and a joint venture between China National Offshore Oil Corporation (CNOOC) and Shell with a capacity of 400,000 mt/year, sources said.

“If these plants do not start up as planned, then demand will definitely outstrip supply (in 2018),” said a Chinese trader.

Methanol to olefin-linked PP production will likely be hampered in early 2018 by surging feedstock methanol prices amid a global shortage.

Zhejiang Xing Xing’s MTO at Ningbo shut in mid-November for about a month due to poor economics and may shut again in Q1 if high spot methanol prices persist, said a company source. The MTO unit is integrated with a 300,000 mt/year PP plant.

In Q2, an active turnaround schedule is expected to keep China’s domestic PP supply tight in the summer, industry sources said.

Sinopec Zhenhai Refining’s integrated PP units 1 and 2 with a total capacity of 500,000 mt/year will undergo scheduled maintenance at end April and mid-May respectively, which will lead to the loss of more than 60,000 mt of production in Q2, according to industry estimates.

Shenhua’s CTO integrated 450,000 mt/year Turpan PP plant and 300,000 mt/year Yulin PP plant will shut for month-long maintenance July 1, with an associated production loss of about 70,000 mt in Q3, according to company sources.

CFR FE ASIA PP RAFFIA SET TO FIRM Q1 (\$/mt)



Source: Platts

On the demand front, China is seen set to consume just under 25 million mt of PP in 2018, up 5% year on year, according to Platts Analytics.

Tightening environmental regulations may lead to closures and consolidations as the smaller and typically less efficient converters are edged out, an end-user said.

The typically volatile demand from China’s futures market will likely be muted in 2018 amid the government’s efforts to clamp down on excessive speculation, traders said.

China’s PP imports to rise amid regional tradeflow changes

China’s PP imports are seen set to rise well above 1 million mt in 2018 on domestic production constraints and seasonal demand before Lunar New Year, while annual imports may rise 5-8% year on year, industry sources said.

Taiwan will likely continue expanding its exports to China in 2018, by around 5% year on year, in line with 2017 growth.

South Korea, China’s largest PP exporter, will likely return to growth in 2018 after a disappointing 2017, when exports to China fell 5% following China’s political decision to punish the country for hosting US missile defense systems.

Southeast Asia’s most important PP importer, Vietnam, looks set to slash its PP imports with the commercial startup of the Nghi Son refinery-integrated 400,000 mt/year PP plant in Q2 2018. Vietnam currently imports an estimated 1 million mt/year of PP mainly from the Middle East, South Korea and Taiwan.

China’s scrap plastic ban may also shift some recycling processing plants to Vietnam, but it is not entirely clear the Vietnamese government is willing to give the green light to these polluting industries, according to recycling participants on the sidelines of VietnamPlas in September.

While it will not replace China overnight, access to cheaper recycled resin may benefit Vietnamese converters and decrease dependence on imports, the sources said.

The premium for Southeast Asia PP over Chinese material seen in the past may fall in 2018 as Vietnam’s PP deficit narrows, a Vietnamese trader said.

Thailand saw its PP exports to China drop 13% year on year in 2016 and by about 16% in 2017 as it focused selling within the ASEAN duty walls, but may reverse this strategy as Vietnam’s deficit decreases.

“[in 2018], we will prioritize the ASEAN market, as well as focus on China, where we think import requirements will increase,” an analyst for a major Thai producer said.

“Vietnam will have more local supply [in 2018], we will not compete on raffia [there]; we will focus on specialty grades like IPP film,” the source added.

India’s exports to China will likely continue to fall in 2018 as it focuses on its burgeoning domestic PP demand, which is forecast to rise 9.3% year on year in 2018, according to Platts Analytics.

India’s demand has been growing in excess of 9%/year for several years, while exports have declined more than 40%/year over the same period, turning it from a net exporting country to a self-sufficient one.

Overall, China’s war on pollution will likely dampen production in Q1, while the summer turnaround season will continue to keep supply from ballooning in Q2, likely creating the conditions for more imports in the first half of 2018.

Northeast Asian suppliers are expected to expand PP exports to China in H1 2018, while Southeast Asia may also see trade pattern changes as Vietnam increases domestic production and decreases imports.

— [Yi-Jeng Huang](#)

ASIAN MEG MARKET TO REMAIN BULLISH

The Asian monoethylene glycol market is expected to remain bullish in 2018 as end-users and new downstream polyester plants will boost demand.

According to sources, 2018 term contracts in China are being settled at smaller discounts of \$3-\$4/mt, a far cry from previous years.

“Term contracts used to be at discounts of \$5-\$10/mt,” a Northeast Asian trader said.

End-users are accepting smaller discounts as MEG supply is expected to be less than the previous years, due to the startup of downstream polyester plants, sources added.

“China still has a lot of room to grow as its middle class is still expanding, the economy is flourishing and incomes will rise, which will cause polyester demand to grow,” a Chinese trader said.

With the World Bank forecasting China’s economic growth at 6.2% in 2018, and as consumption is directly linked to the economic growth, downstream polyester demand in China is expected to surge 10% on the year in 2018.

The operating rates of existing polyester plants could increase beyond 70% in 2017. Earlier, they were operating at 60%-65%, a Northeast Asian trader noted.

Market sources expect approximately 2.6 million mt/year of new polyester capacity to startup in the first half of 2018.

To make one unit of PET, also known as polyethylene terephthalate, 0.35 unit of MEG is required, indicating that some 910,000 mt of new MEG supply would be absorbed by the new polyester plants.

More US supply headed for China

In 2018, the total MEG production capacity in China is expected to be 6 million mt/year, including 450,000 mt/year of new naphtha-based capacity and 600,000 mt/year of new coal-based capacity.

China, however, still expects to increase its total import volume year on year as some of the downstream plants would not be able to use coal-based MEG due to specification issues. For 2017, its MEG imports were expected to total 7.5 million mt.

Moreover, Italian chemical group Mossi Ghisolfi was reported to be selling off its MEG inventory at its Mexico and West Virginia polyethylene terephthalate plants.

These plants were shut due to the company’s recent bankruptcy filing on October 27, 2017. Their MEG inventory is estimated to be around 50,000-100,000 mt and a portion of that inventory was reported sold in the US, with the remaining expected to make its way to Asia in Q1 2018.

China’s growing MEG demand will keep trade flows largely unidirectional, with more cargoes expected to arrive from the US Gulf Coast and Middle East in 2018.

Bullish sentiment driven by futures, profits

Talks of a possible listing of MEG futures on the Dalian Commodity Exchange has led to bullish sentiment in China, with existing naphtha-based MEG producers consistently operating at 90% of their nameplate capacity to maximize their profits.

Coal-based MEG plants, which were initially heard to have teething problems, will be maintaining their operating capacities at about 80% in 2018.

Although the listing plans are shelved temporarily due to administrative changes and recent political upheavals, producers are likely to maintain their high operating rates in case the plan changes.

“Once the dates for MEG futures to list on the DCE have been confirmed, distributors will start to purchase in larger quantities and build up their inventories, so as to avoid paying even higher prices in future,” a Japanese trader said.

— [Staff](#)

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