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Asia Chemicals Outlook | January 2016

# ASIA CHEMICALS OUTLOOK

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2

0

1

6



# QUICK NAVIGATION

## PLASTICS/POLYMERS

- POLYETHYLENE (PE)
- POLYPROPYLENE (PP)
- EPS AND PS
- PVC
- CAUSTIC SODA
- PLASTICIZERS

## OLEFINS

- ETHYLENE
- PROPYLENE

## AROMATICS

- BENZENE
- TOLUENE
- STYRENE
- PARAXYLENE
- MIXED XYLENES

## RUBBER

- SBR

## FIBRE CHAIN

- PURIFIED TEREPHALATIC ACID (PTA)
- POLYETHYLENE TEREPHALATE (PET) AND RECYCLED POLYETHYLENE TEREPHALATE (R-PET)
- MONOETHYLENE GLYCOL

## ALCOHOLS

- ETHANOLOMINES
- OXO-ALCOHOLS
- METHANOL

## PHENOLICS / CHLORALKALI

- MDI
- BPA

## SOLVENTS

- BUTAC
- IPA AND ACETONE
- PHENOL AND ACETONE
- EPOXY AND ECH

## SURFACTANTS AND OLEOCHEMICALS

- GLYCERINE

## ACIDS

- ACRYLATE ESTERS/ACRYLIC ACID
- ACN
- ACETIC ACID AND VAM

## POLYURETHANE

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### SE ASIA PE TO STAY SOFT ON BEARISH MARKET SENTIMENT

By: Felita Widjaja | 22 December 2015

SINGAPORE (ICIS)--Spot prices of imported polyethylene (PE) grades in southeast Asia are expected to remain stable-to-soft in the first quarter of 2016, with no strong demand recovery expected ahead of the Lunar New Year holiday in the key China market, industry sources said.

Weak demand throughout 2015 has dampened market sentiment, possibly deterring traders from taking big positions in January to March 2016, to minimise risk, market sources said.

"Demand might still be low in 2016 with lower sales volume and narrower profit," a Thailand-based trader said.

Demand is expected to slow down nearer to the Lunar New Year holiday, when most players in China would exit the market and halt trade activity.

China will be on holiday on 7-13 February for the Lunar New Year festivities.

China's continued addition of PE capacity amid an economic slowdown is also worrying market players in southeast Asia.

"There are more re-export cargoes coming from China to Vietnam in the last few months as Chinese traders and overseas suppliers are under pressure to sell their cargoes and need to look at alternative markets because China market cannot absorb them," a Vietnamese trader said.

Supply is expected to grow further with new plants also expected to start up elsewhere in Asia and the Middle East next year, and keep the downward pressure on PE prices despite firm feedstock ethylene prices, most market participants said.

An inflow of arbitrage cargoes will also weigh on the southeast Asian market, they said. "Brazil's economy is not good too nowadays so we might see more Brazilian

cargoes, as well as Korean cargoes which are usually sold to Brazil," a trader said.

"People might restock for their factory production in the beginning of January but it might not be a significant increase as it's still considered low season till April," the trader said.

Most players in southeast Asia are adopting a cautious outlook on the PE market, opting to monitor China's domestic market and await a clearer price direction.

Downstream converters are expected to continue purchases on a need-to basis and reduce their import volumes given a general expectation that Asian currencies will depreciate further following the recent interest rate hike in the US, market sources said.

Buyers are expected to rely more on prompt local material for their immediate requirements for most of the first quarter, they said.

"Volatile local currencies make it too risky for us to import because prices might drop again before the cargoes reach us so our cost becomes more expensive," a converter said.

"Buyers are only interested in prompt import cargoes now because they do not want to wait too long for their cargoes when price is on a downtrend," a second trader said.

Some market participants are hopeful that prices might rebound after Chinese New Year, when converters re-enter the markets to restock.

However, they noted that significant price increase in PE markets can only happen if there are major supply constraints or a strong rebound in crude oil prices.

"China['s PE] market might pick up in April after the Canton Fair, the 119th China Import and Export Fair 2016 in Guangzhou, when manufacturers receive their orders" said a regional trade, adding that this might have a positive spill-over

effect on the southeast Asian market.

Meanwhile, scheduled turnarounds at some US and Middle East PE facilities sometime in the first quarter may tighten supply and provide some support to prices, market sources said.

### WEAK YUAN, DEMAND WEIGH ON CHINA PE IMPORT PRICES

By: Angie Li | 22 December 2015

SINGAPORE (ICIS)--China's import prices for polyethylene (PE) may remain soft through to February amid a slowdown in downstream demand and the continued weakening of the yuan against the US dollar, industry sources said.

Traders and plastics processors in the country are expected to stop booking end-January or early-February arrival cargoes ahead of the week-long Lunar New Year celebration in China on 7-13 February, they said. Transportation of cargoes will be the least priority in the weeks leading to the holidays, with domestic plastics processors expected to maintain low operating rates at their plants because most of their workers will be away, distributors said.

"Restocking activity will slow down significantly in the two weeks before and after the holiday," a local trader said. Meanwhile, expectations of further depreciation by the Chinese yuan against the US dollar will likely weigh on PE import prices, according to local distributors.

The US dollar has strengthened following the Federal Reserve's decision on 17 December to hike interest rates for the first time since 2006, betting on the relative strength of the US economic recovery.

The US is the world's biggest economy, with China coming in second. China is expected to maintain a loose monetary policy next year as the economy continues to exhibit signs of weakness a major source of downward pressure on the yuan, an industry source said. PE importers in China will be discouraged by the yuan's weakness, which makes US-dollar



denominated cargoes procured from abroad more expensive.

Local PE resin supply is expected to increase in the first quarter of 2016, with the expected start-up of a 300,000 tonne/year low density PE (LDPE) plant of Yulin Shenhua Energy Co at Shanxi Province in the end of 2015, according to local distributors.

In Saudi Arabia, Sadara Chemical has started up its 375,000 tonne/year linear low density polyethylene (LLDPE) plant at its Jubail complex on 7 December 2015.

Some of the plant's output are expected to be marketed into Asia. Meanwhile, China's PE plants are expected to continue running during the week-long Lunar New Year holiday and will likely lead to a strong build-up in inventory, which will exert pressure on prices in the second half of

February, market sources said. Some distributors are hopeful that demand will recover after the holidays and boost prices in the PE market in March.

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### SE ASIA PP DOWNTREND SEEN COMING TO AN END SOON

By: Johanna Truong | 22 December 2015

SINGAPORE (ICIS)--Southeast (SE) Asia polypropylene (PP) price downtrend is expected to come to an end as market participants say they feel values will hit the bottom soon though demand is likely to remain soft in the first quarter of 2016.

"There's not much room for PP prices to drop further," a SE Asia-based producer said.

Market outlook for propylene in was seen weak amid stable-to-soft demand in SE Asia, an industry source said.

"PP may drop further amid unclear price direction of propylene and weak international crude futures," a PP trader said.

China's PP demand is expected to generally decrease in the first quarter as PP converters will retreat from the market in the Chinese Spring Festival season in the first half of February, which will result in a slowdown of trade activities.

Demand for PP injection and block copolymer grades is expected to increase as these grades can replace high density polyethylene low-melt injection grade due to their price competitiveness against the PE prices, according to industry sources.

PP supply from Chinese producers is expected to rise upon the start-ups of Shendua Yulin Energy's 300,000tonne/year in end December 2015, and Fujian Meide Petrochemical's 350,000 tonne/year in early 2016 (Phase I).

In SE Asia, demand for import is expected to remain weak as locally traded PP resins were available at competitive levels against import prices in SE Asia.

"Converters only procure hand-to-mouth as low-priced PP resins are available for spot trade amid ample supply," a Vietnamese trader said.

"We prefer to procure locally as the Indonesian Rupiah is very volatile," an Indonesian converter said.

Converters were expected to restock in

January ahead of Chinese New Year but this would not really support PP prices, several sellers in Malaysia and Thailand said.

The generally bearish demand for import is expected to pressure PP prices to remain weak in the first quarter.

"There's no factor to support PP prices to rebound in the near term," a market player said.

Weak downstream demand for plastics finished goods amid the slowdown of China and SE Asia economies weighed heavily on the market sentiment.

Subdued international trade was expected, while buying activities would most likely focus within the domestic markets, according to industry sources.

PP prices were largely stable as feedstock propylene prices fluctuated in September and October, but declined on a narrowing spread between PP and propylene in Asia in November and December.

Recovery of feedstock propylene in October on improved buying interest lent support for PP prices to stay steady in October as the wide spread between PP and propylene started to narrow.

PP suppliers held onto offer prices in October despite weak appetite for import, as buyers were reluctant to procure amid unclear price direction and expectation on PP price decline, citing the persistent wide spread.

The price gap narrowed further as PP suppliers cut their offer prices in November and December under pressure of year-end sales target.

Meanwhile, propylene prices rose steadily on balanced supply-demand, particularly in SE Asia, and sustained the recovery by the end of December.

Weak feedstock propylene prices in Asia coupled with slow demand for import for PP will remain as a bearish factor in the regional market.

Propylene-PP spread reduced from \$540/tonne to \$200/tonne in SE Asia from early October to mid-December.

The narrower spread prompted importers to expect PP prices to bottom out in the near term.

Prices were stable in October on balanced supply from Middle East and Asian producers, and subsequently fell steeply on weak demand for import at year end.

China PP flat yarn import price saw a minor drop of \$3.25/tonne in October from the previous month, but lost \$79.87/tonne by end November while continuing to decline further in December, ICIS Monthly Settlement Price (MSP) data shows.

In SE Asia, PP flat yarn mirrored the price movement in China reflecting a slight decline of \$1.00/tonne by end of October followed by a steep downtrend in November and December. PP flat yarn November MSP CFR SE Asia dropped by \$55.25/tonne from the previous month.

### CHINA MAY PP FUTURES DOWN 2.53%, TRACKING CRUDE OIL PRICE DECREASE

By: Selina Wang | 7 January 2016

SINGAPORE (ICIS)--China's polypropylene (PP) futures fell by 2.53% on Thursday, tracking the crude oil price decrease, industry sources said.

May PP futures, the most actively traded contract on the Dalian Commodity Exchange (DCE), closed at yuan (CNY) 5,627/tonne (\$860/tonne), down by CNY146/tonne from Wednesday.

Around 4.61m tonnes of PP or 1,843,020 contracts for delivery in May were traded on Thursday, according to DCE data.

Brent crude oil price closed at \$34.23/bbl on 6 January, down by \$2.19/bbl from 5 January.

### GCC POLYMER PRODUCERS BRACE FOR PRICE PRESSURES IN Q1

By: Muhamad Fadhil | 7 January 2016

Polymer producers in the Gulf Cooperation Council (GCC) region expect strong downward price pressures in Q1 2016 because of weak regional demand, oversupply and possible competition

posed by Iran, sources said. "We are extremely worried," said a GCC-based supplier of polyethylene (PE) and polypropylene (PP). The GCC comprises Bahrain, Kuwait, Oman, Qatar, Saudi Arabia, and the UAE. Polymer demand in the Middle East has been weak since late September, coinciding with the end of the Muslim festival of Eid-ul-Adha or the Feast of Sacrifice.

"Since Eid-ul-Adha, we have not bought much polymers. Need-based buying is what we are currently practicing," said a major buyer in the Middle East.

UAE's Borouge is ramping up production at the third phase of its expansion (Borouge 3).

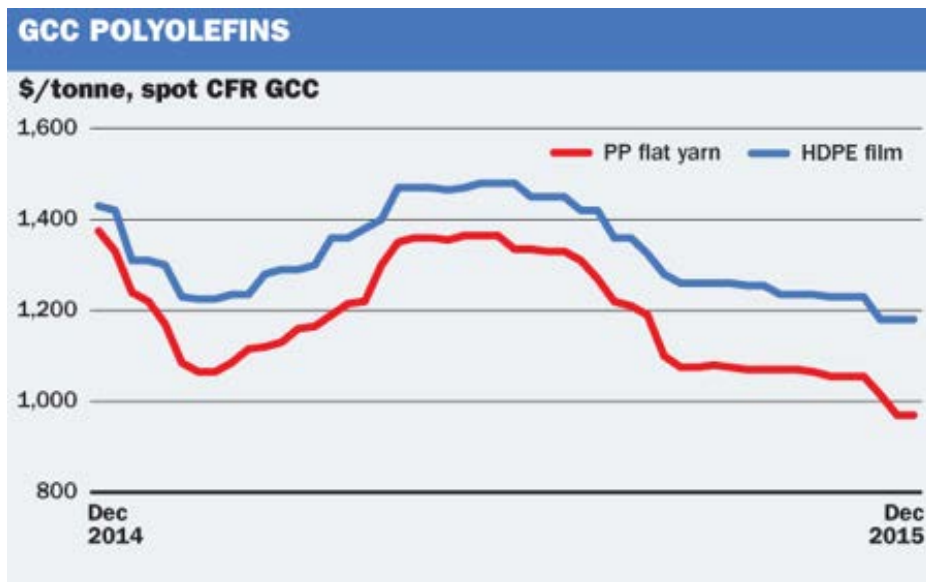
"Borouge is very aggressive now with its offers. We are seeing more competition in the Middle East," a Dubai-based distributor said.

Borouge 3 comprises a 1.5m tonne/year ethane cracker and derivative plants, including high density PE (HDPE) and linear low density PE (LLDPE) units with a combined capacity of 1.08m tonnes/year; a 350,000 tonne/year low density PE (LDPE) unit; and two PP units with a combined capacity of 960,000 tonnes/year. In Saudi Arabia, Sadara Chemical started up on 7 December a 375,000 tonne/year linear low density polyethylene (LLDPE) plant, the first of the 26 petrochemical units at its Jubail complex. Sadara, a joint venture between Saudi Aramco and US-based Dow Chemical, will be able to produce 1.08m/tonnes of PE. It is the first petrochemical complex in the Middle East that will use naphtha as feedstock. "The outcome is inevitable – more capacity in the Middle East only means lower prices," a Middle East buyer said. EXTRA IRAN SUPPLY

Adding to the supply woes is the expected return of Iran to the global polymer scene. The country is a major PE producer that was prevented from exporting to its main market – Europe – by international sanctions.

Most market players expect the sanctions to be lifted early next year. It would mean that major suppliers in Saudi Arabia, Qatar and the UAE will compete directly with Iran in the European market.

"The Iran factor is unsettling many GCC producers. Prices should dip once Iran returns," said a Dubai distributor with close links to Iranian suppliers.



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### MIDEAST, INDIAN PS BEARISH ON WEAK CRUDE OUTLOOK

By: Veena Parthare | 5 January 2016

SINGAPORE (ICIS)—Middle East and south Asia polystyrene (PS) market is likely to remain weak in the first half of 2016 as a result of falling crude and feedstock prices coupled with weak demand in the region, industry sources said.

Steep declines in crude futures that has affected the GDP growth of almost all countries in the Gulf Cooperation Council (GCC) is one of the primary factors affecting PS performance in 2016, as regional players continue to grapple with reduced manufacturing activity.

In the Middle East, PS finds use in the manufacture of disposable food containers. Demand for these containers traditionally peaks ahead of Ramadan, Eid ul-Fitr and the year-end holidays. Regional converters hence typically restock inventories ahead of the holiday months.

According to market sources, resin demand in the region has been capped since mid- 2014 by the crude oil price plunge and the continued uncertainty and volatility in feedstock styrene prices.

This, coupled with weak demand affected PS purchasing for much of 2015 and is likely to extend into the first half of 2016.

Several Asian sellers deemed PS demand in November and December 2015 to be stronger-than-usual, and reported robust sales into the Middle East.

However, they were of the view that this was a result of reduced purchases following upstream uncertainty in the months before, and don't expect the momentum to sustain in the first quarter of 2016.

Weak domestic demand led a Saudi-based PS producer to export a bulk of its volume outside of the country.

The seller was seen offering competitive prices to end-users in the GCC and East Med markets that reduced the arbitrage opportunity for Asian cargoes.

According to market players, a continued

weakness in Saudi's economy following weak crude is likely to limit any change in this situation, and buyers will continue to see competitive offers for the regional product.

The situation in the East Mediterranean markets of Syria, Iraq and Jordan is also likely to remain grim in 2016, capped by the ongoing political turmoil.

Weak demand in Iraq, the key market for finished product exports for many converters has led to poor resin demand in Jordan.

"The Iraq-Jordan border remains closed and there has been no date announced for its opening. Until this opens, we don't expect demand for PS or any other resin [polymer] to improve since Iraq is the market for most Jordanian converters exporting finished product," a Jordan-based trader said.

Demand outlook in south Asian market of India for 2016 also remains capped by the macroeconomic uncertainty and a slowdown in the manufacturing sector, while the price outlook remains pessimistic plagued by weaker crude and upstream prices.

In India PS is widely used in the manufacture of home appliances such as refrigerators and air conditioners. This demand is also mostly seasonal.

Demand drops during the winter months of December to February, when appliance sales weaken.

Home appliance manufacturers traditionally restock inventories ahead of summer that begins in March and extend until May when demand for air conditioners remains strong.

Demand for appliances surges during the Diwali festivities late in the year, prompting a surge in restocking in September and October.

"A lacklustre macroeconomic environment has affected consumer spending, especially in the rural sector. This has affected our sales to air conditioner, refrigerator and television manufacturers," a source at a domestic producer said.



Despite stable sales driven by replacement of older units among urban consumers, growth primarily comes from increased purchasing among the rural population that constitutes the bulk of India, the source said.

According to him, dependence on rainfall for a bumper crop and its impact on household spending is likely to continue in 2016.

The threat from versatile substitutes such as polypropylene (PP) and polyethylene terephthalate (PET) in food packaging and from acrylonitrile-butadiene-styrene (ABS) in electronics such as televisions is likely to play out in 2016 as well, market players said.

"Prices of PP or PET have been more stable as compared with PS that has seen sharp swings because of styrene volatility. If PS prices continue to remain volatile, end-users are likely to make the switch to other polymers, and several have already done that," a GCC-based trader said.

Traders and end-users focus on maintaining lean stocks in 2016 amid the demand uncertainty. Most Middle Eastern traders also look to conducting back-to-back deals, as compared with "stock and sell".

Weak outlook in the key China market that is likely to post its poor growth in 2015 has also dampened sentiments in 2016, the GCC-based trader said.



# PLASTICS/ POLYMERS

## POLYVINYL CHLORIDE (PVC)



### INDIA PVC SEEN UNDER PRESSURE DESPITE UPTREND HOPES

By: Veena Parthare | 5 January 2016

SINGAPORE (ICIS)—Gains in India's polyvinyl chloride (PVC) market are likely to remain capped in early 2016 even though Asian sellers expect prices to rise in the first half of the year, industry sources said.

Persistently high ethylene prices and squeezed margins are said to drive Asian PVC manufacturers to target higher prices for the first half of 2016.

This, coupled with little or no change in the supply-demand balance across Asia is likely to lend support to higher prices, sellers said.

Indian importers however, remained uncertain on the extent of the price increase.

Sufficient supply of domestic and imported product, wide choice in import sources, and the looming threat from Chinese carbide-based PVC are likely to cap any significant uptrend in prices in the first half of 2016, according to Indian buyers. Most market players nevertheless agreed that PVC prices were at the bottom or close to the bottom, and don't think prices could fall further in the near-term. Indian PVC import prices are trending at their lowest levels since January 2009, according to ICIS data.

Despite netting an increase from January to March 2015, prices continued to fall for the rest of 2015, plagued by weak crude as well as sluggish downstream demand. Prices touched a high of \$955/tonne CFR (cost & freight) India in early April, up from \$835/tonne CFR India in early January but ended the year at \$745/tonne CFR India in end-December 2015, even as ethylene prices showed limited downward movement.

A weaker-than-average monsoon in 2015 capped sales of irrigation pipes, the biggest consumer of PVC resin in India. An underperforming Chinese market, as well as the decline in crude oil prices to an 11-year low capped sentiments in the Indian market for most of the year. Uncertainty on the demand front continues to dominate end-user expectations in early

2016, which also marks the beginning of the last quarter for the 2015 fiscal year in India.

The Indian financial year begins in April and ends in March.

Despite a traditional rise in demand in the fourth quarter supported by restocking ahead of the pipe laying season, Indian market players remain pessimistic of a drastic demand surge.

Expectations were marred by a slowdown in the economic machinery of the country, as well as the weak monsoon in 2015 that had significantly affected the spending power among farmers.

Construction activity was slow and several government projects were heard to have been delayed, hampering demand. End-users were said to carry sufficient stocks of finished product that capped their resin purchases.

According to an Indian end-user active in the construction segment, working capital among several small and mid-sized buyers was tied up in stocks of finished product. This hampered their resin purchase volumes.

"A lot of effort is spent in seeking payments for the products sold to buyers in the residential real estate sector that

failed to see the kind of growth everybody was hoping for," the buyer said.

Cheaper carbide-based PVC prices that are likely to make their way into India in the backdrop of China's economic slowdown are also cited as a key factor to keep ethylene-based PVC prices in check in 2016.

China's PVC market remains weak and carbide-based PVC producers are left with little choice but to export large volumes to countries such as India that readily accept the product traditionally considered by other markets as less versatile than its ethylene-based counterpart.

In the recent months, Latin American and Russian PVC have also begun to find their way into the Indian market, as a result of weak demand in their respective domestic markets.

These non-traditional PVC sources enjoy exemption from ADD payments and are offered at competitive prices to large volume buyers who are not hassled by the long voyage times involved.

Volumes from these destinations are likely to go up in 2016, impacting Asian PVC prices further, market sources said.





### ASIA LIQUID CAUSTIC SODA TO REBOUND IN Q1

By: Kite Chong | 31 December 2015

SINGAPORE (ICIS)--Liquid caustic soda prices in Asia may continue to recover in early 2016 after bottoming out in December as spot availability became limited since the third quarter of this year, industry sources said.

Export volumes from China were limited as domestic chlor-alkali producers were running their plants at reduced capacity as prices of co-product chlorine fell to rock-bottom levels, they said.

Availability of spot material was further made scarce by ongoing turnarounds at other plants in northeast Asia. This market situation is unlikely to change until after Lunar New Year, which falls on 8 February 2016.

South Korean producers have limited spot parcels to offer amid reduced production at their chlor-alkali facilities to better manage their margins amid poor chlorine derivatives markets.

In the fourth quarter of 2015, even Japanese producers were not offering much volume, having sold out their cargoes in the previous months, industry sources said.

Southeast Asian buyers were the most active buyers in the fourth quarter, while demand from US West Coast buyers dwindled during the same period.

Indian buyers, meanwhile, were interested in purchasing from northeast Asia producers, but fixtures were seldom heard amid a wide buy-sell gap.

Supply conditions in Asia are not expected to improve going into the new year, market sources said.

Chinese producers are still not interested to export since they can sell at higher prices in the domestic market, and with overall production expected to wind down ahead of the week-long Lunar New Year celebration in China on 7-13 February.

Some regional buyers, however, noted that China is being presented a good opportunity to ship caustic soda abroad given the country's huge production capacity and amid the sharp depreciation of the yuan, which is a boon for exports.

Major South Korean producers are not keen to take active participation in the spot market early next year unless the chlorine derivatives markets improve.

Some Japanese producers, meanwhile, were heard lowering their chlor-alkali production amid continued market weakness, resulting in difficulty securing Japan-origin spot cargoes for January-loading, industry sources said.

Traders in northeast Asia indicated continued earnest enquiries from Indian buyers, but actual purchases would likely be for Middle East cargoes, since the prices being quoted are lower than those in the Asian market.

Southeast Asia's caustic soda demand for January-lifting cargoes has improved from December.

If prices of ethylene – the main feedstock in the vinyls chain together with chlorine – remained high, more vinyl producers might choose to cut their chlor-alkali operating rates and purchase comparatively cheaper spot ethyl dichloride (EDC) instead as a cost-relieving measure.

These spot purchases of EDC will mean continuing reduced production of chlorine and caustic soda, market sources said.

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### ASIA PLASTICIZERS LIKELY REBOUND AMID LUKEWARM DEMAND

By: Josen Ng | 7 January 2016

SINGAPORE (ICIS)--The plasticizers market in China is expected to display a small level of rebound in the first quarter of 2016 following an uninspiring end to 2015. "In the first quarter of 2016, there is a chance the price will increase simply because the price is too low now," said a northeast Asian trader.

It added that if dioctyl phthalate (DOP) prices go on an uptrend, there will be more market confidence and the net result would be favourable for other plasticizers like dioctyl terephthalate (DOTP) and diisononyl phthalate (DINP).

A separate trader held a similar sentiment, saying that even though the DINP spot market was weak in 2015, it is not expected to head further down in 2016. "There will be no significant [price] movements, since DINP is quite dependent on feedstock," the trader said.

Better demand elsewhere may also create limited cargo availability in the Chinese import market. "I sold 400 tonnes [of DOTP] for December but had to cancel because there is no supply for export.

Domestic demand is good," one northeast Asian producer outside of China said in the final few weeks of 2015.

While market players are expecting a rebound, actual demand for plasticizers in China is unlikely to pick up until the period before the Lunar New Year, when some buyers would try to stock up on inventories.

However, this increase may not place a large enough upward pull in spot prices over a sustained period of time because of poor macroeconomic environment in China. Competition will remain tough for key producers in the northeast Asia.

Another potential bearish factor for the plasticizers market is the weak Chinese phthalic anhydride (PA) market. Both the domestic and import markets in China were badly hit at the end of 2015 by poor demand and they provided no support for the plasticizers market at all. DINP prices in the Chinese import market lost some 29% in 2015 and was hovering at around \$810/tonne CFR (cost and freight) China in the final weeks of the year.

Demand was weak, especially in the latter part of the year. The DINP market was described as over-supplied and "difficult" by some northeast Asian producers.

Some DINP buyers in China also decided to use different plasticizers, said one producer, making a difficult market even more challenging.

In the FOB (free on board) NE (northeast) Asia market, DINP prices lost some 24% in 2015, ending the year at about \$875/tonne FOB NE Asia on average as demand was similarly weak in certain markets, including southeast Asia.

Some market players said demand in the region is generally for smaller volumes. As such, most deals are done on a flexi bag basis instead of a bulk basis.

DOTP prices fared slightly better, ending the year at a higher level, but could not avoid a downtrend similar to DINP's, albeit less pronounced. DOTP lost some 21% in 2015 in the Chinese import market.

The average price in the latter part of the year was at about \$915/tonne CFR China.

Some 95% of DINP is used in PVC applications. More than half of the DINP used in non-PVC applications involves polymer related-uses.

DOTP is projected to be employed in food contact products, medical goods and toys.

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### ASIA C2 SUPPLY TO STAY TIGHT ON JAPAN CRACKER CLOSURE

By: Yeow Pei Lin | 31 December 2015

SINGAPORE (ICIS)—Northeast Asian ethylene (C2) supplies are expected to remain tight in 2016 as capacity losses owing to a cracker closure in Japan are unlikely to be adequately counterbalanced by a lighter cracker turnaround schedule, market players said.

Southeast Asian end-users will likely rely more heavily on arbitrage cargoes from Europe as exports from the Middle East may stay at reduced levels next year and due to a prolonged shutdown at Shell's cracker in Singapore, they said.

Exports from Japan are expected to fall from the current year's levels, with a number of producers affected by the ongoing rationalisation of the country's petrochemical industry.

Slightly over 1m tonnes of ethylene production will be lost in 2016 as a result of cracker turnarounds in Asia, with the shutdowns concentrated mainly in northeast Asia, according to ICIS data. This is around half the maintenance-related output losses of 2.17m tonnes in 2015.

But Japan's ethylene production will be down sharply when Asahi Kasei Chemicals shuts its 500,000 tonne/year cracker in Mizushima permanently in February 2016, less than a year after Sumitomo Chemical closed its 415,000 tonne/year unit.

Asahi Kasei will merge its cracker operations with Mitsubishi Chemical under Asahi Kasei Mitsubishi Chemical Ethylene Corporation. The 50:50 joint venture will operate Mitsubishi Chemical's 570,000 tonne/year cracker from 1 April 2016.

Asahi Kasei's cracker closure will begin to impact Japan's ethylene supply-demand balance from April onwards after the producer completes its first-quarter downstream plant turnarounds, Japanese sources said.

Both Asahi Kasei and Mitsubishi, which are currently in a relatively balanced position, will become net buyers. They are

in the process of sourcing domestic supply for delivery from the second quarter of 2016 and this has impacted the quantity of cargoes offered by other Japanese producers for export under their 2016 term contracts.

Separately, a key Japanese supplier Maruzen Petrochemical plans to reduce its exports following a reduction in its share of product allocation in Keiyo Ethylene this year and ahead of scheduled maintenance at its 520,000 tonne/year cracker in Chiba in mid-2016.

Supplies from South Korea – another major export market – will likely continue to contract in 2016 on higher domestic consumption.

Korean end-users are seeking additional domestic quantities to offset the expected fall in Japan's exports, and to operate their plants that started up in the second half of 2015. The downstream plants include Hyosung Corp's 50,000 tonne/year polyketone plant and Kumho Polychem's 60,000 tonne/year ethylene propylene diene monomer (EPDM) unit. Key ethylene exporter Yeochun NCC's (YNCC) also started up a 140,000 tonne/year olefins conversion unit (OCU).

Korea's ethylene exports dropped by 32.4% year on year to 757,074 tonnes in 2014, with the total shipments in 2015 likely to decline further below 600,000 tonnes due to a series of turnarounds at major crackers, according to Korean sources.

Term export volumes offered by some northeast Asian producers have declined by up to 50-70% from the current year's levels, sources said.

"The quantity offered by a few suppliers is pitiful. We are trying to get them to increase the supply," a trader said.

With the resources in the two major export markets becoming more limited, the operators of stand-alone downstream projects slated to start up in end-2015 and 2016 in China and Taiwan will likely face difficulty in securing competitively-priced feedstock.

Some of the new facilities that will be reliant on import cargoes include Qingdao

Haijing's 1.1m tonne/year vinyls complex in China and USI Corp's two 75,000 tonne/year ethylene vinyl acetate (EVA)/low density polyethylene (LDPE) plants in Taiwan.

In southeast Asia, consumers will likely lean more heavily on supplies from Europe on expectations of continued weak exports from the Middle East and given the uncertain restart schedule of Shell's 960,000 tonne/year cracker in Singapore.

End-users and traders said shipments from Saudi Arabia and the UAE will be constrained by cracker turnarounds, insufficient feedstock ethane and healthy domestic demand.

"Our term supplier has not given any indications on the quantities available for export. It is already coming to the end of the year. There is probably not going to be anything renewed," a buyer said.

The uncertain production situation in Singapore added to the supply woes.

A Mideast producer had relied on a producer in Singapore to fulfil a substantial quantity of its 2015 term commitment to end-users, but cargo availability in Singapore is unclear next year following Shell's cracker outage in late November. Sources said the facility on Palau Bukom may remain shut for up to four to six months.

The tighter balance in Asia will offer an opportunity for producers in the US Gulf and Europe to increase their exports.

A regional trader has made an agreement with a European producer for at least 250,000-300,000 tonnes of ethylene supply in 2016, with most supply likely to head to southeast Asia, market sources said.

There will likely be a steady flow of cargoes from the Americas as well, particularly in the US, where producers enjoy the advantage of low-cost feedstock. The bulk of the US cargoes will head to northeast Asia, they said.

Meanwhile, many end-users are bracing themselves for a tough year because of the weak Chinese economic outlook and amid expectations of firm feedstock

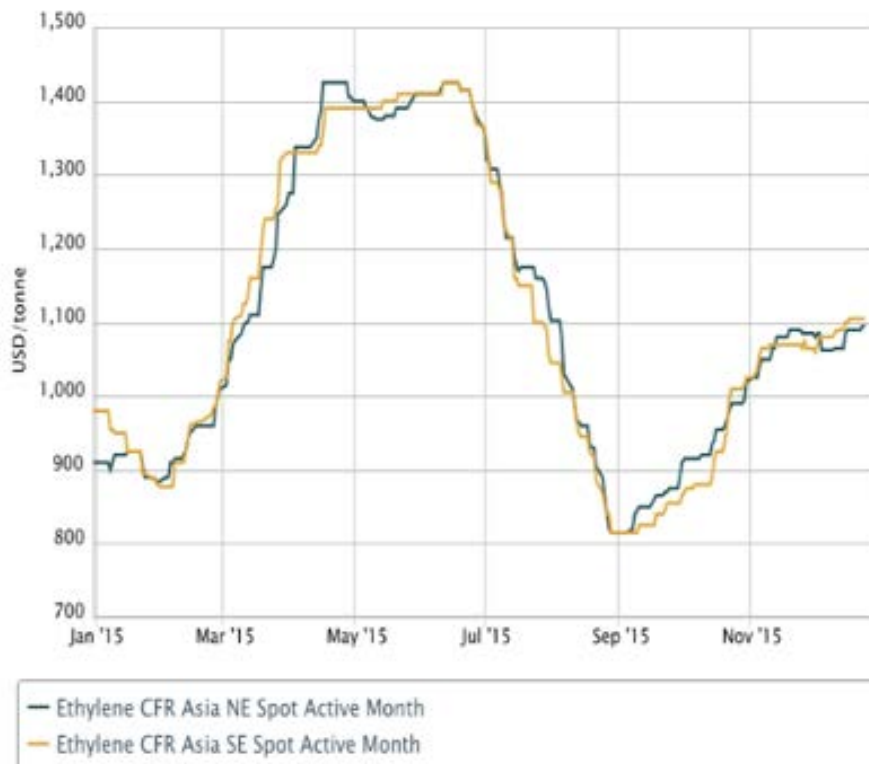
ethylene costs.

A number of Chinese buyers expect to operate their plants at reduced rates in 2016 and this, coupled with deep-sea supplies, may help to moderate the impact of the tight regional supply on prices.

“We will not lock in too much high-cost term supply. We need to have the option to cut operations when our margins are poor,” a Chinese end-user said.

Other end-users are hoping that producers with integrated operations will opt to reduce the underperforming downstream units and offer ethylene for export.

“Look at [how] bad the MEG [monoethylene glycol] market is now. If this continues, more producers will be selling ethylene,” a buyer said.



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### LONG SUPPLY TO WEIGH ON ASIA PROPYLENE PRICES

By: Michelle Lim | 31 December 2015

SINGAPORE (ICIS)—Propylene supply in Asia is expected to lengthen in 2016, with additional capacity coming on stream in the northeast and southeast parts of the region likely to outstrip any increase in downstream demand, industry sources said. Spot prices of the material may come under downward pressure after going through a slow but steady recovery in the last three months of 2015, after slumping near seven-year lows in the third quarter amid the global commodities and equities sell-off.

Propylene prices managed to defy the plunge in crude values to mid-\$30/bbl levels in the fourth quarter of this year. Come next year, however, most players are not optimistic about a buoyant spot propylene market as can be gleaned by the slow progress in contract negotiations.

“Typically, contract discussions for the next year would have been concluded by November or December. But this time, we are seeing very slow progress and a general lack of enthusiasm as it’s widely expected to be a buyers’ market next year,” a northeast Asia-based supplier said. Buyers were said to be demanding bigger discounts or cutting back on their usual contractual volumes amid expectations of increased supply next year. This was a far cry from years ago when a premium on top of the formula-linked pricing was considered the norm, market sources said.

Suppliers are trying to obtain a premium on 2016 contracts or eyeing to keep prices at 2015 levels, citing a possible reduction in supply due to persistently poor economics for olefins conversion units (OCU) and propane dehydrogenation (PDH) units in northeast Asia. But propylene supply in northeast Asia looks certain to increase by more than 2.4m tonnes in the coming year, market sources said.

These new facilities would include three news units in China - Haiwei Group’s 500,000 tonne/year PDH unit in Hebei that is due to start up in the first half of 2016; Fujian Meide Petrochemical’s 660,000 tonne/year PDH unit in Fujian

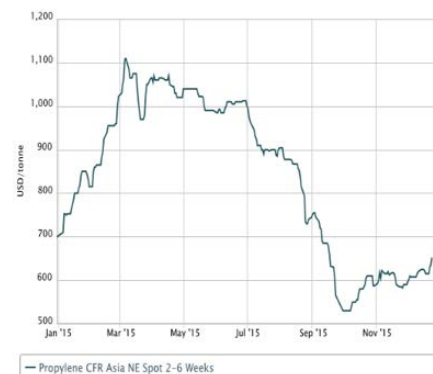
due to come on stream by the end of next year; and Oriental Energy’s 660,000 tonne/year PDH unit in Zhejiang that is expected to come on stream in the second half of 2016. In South Korea, SK Advanced’s 600,000 tonne/year PDH unit in Ulsan is expected to come on stream in the first quarter. Along with a number of smaller methanol-to-olefins (MTO) units also waiting to join in the fray, these new propylene capacities are much larger than the planned expansions or new additions for Chinese downstream projects next year.

China’s downstream projects include Lu Xi Chemicals’ 325,000 tonne/year oxo-alcohols plant in Shandong; Jiangsu Sanmu’s 160,000 tonne/year acrylic acid plant in Jiangsu; Anqing Petrochemicals’ 240,000 tonne/year oxo-alcohols plant in Anqing; as well as Jinling Huntsman New Material’s 240,000 tonne/year propylene oxide (PO) plant in Jiangsu. Although not enough to fully absorb the increase in propylene capacity, these downstream expansion meant price pressures in the derivatives markets, with producers facing a margin squeeze, industry sources said.

In southeast Asia, IRPC’s 320,000 tonne/year direct catalytic cracker (DCC) in Rayong, Thailand is expected to start up in the first quarter. Supply from Indonesia has also increased substantially, with the start-up of Pertamina’s new residual fluid catalytic cracker (RFCC) in Cilacap since mid November, and Chandra Asri successfully raising its propylene output to 480,000 tonnes/year from its expanded cracker from 23 December.

The propylene supply-demand balance in southeast Asia for 2016 remains unclear due to uncertainty over Shell Singapore’s cracker issues, which some market sources believe could take up to six months to fix. A force majeure has been announced on base chemicals supply from the cracker at Pulau Bukom since 1 December.

A protracted uncertainty could continue to create opportunities for northeast Asian, Middle Eastern and possibly European propylene cargoes to be traded in southeast Asia, as was the case in the fourth quarter of 2015.



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### ASIA BENZENE FACES CHALLENGING YEAR ON RISING SUPPLY

By: Daphne Ho | 29 December 2015

SINGAPORE (ICIS)—Asia's benzene market is looking at a challenging year ahead, as supply will grow further in the second half of 2016 with no expected strong recovery in demand amid the global economic slowdown, industry sources said.

South Korea's exports of the material in the second half of 2015 were supported by demand from the US, compensating for the weak demand in Asia, particularly from China and Taiwan, amid turnarounds at downstream plants and poor conditions in derivative products' markets.

A sporadic opening of the arbitrage window to the West during the year, and lower domestic prices in China closed off the country's import window for a prolonged period, resulting in a general shrinking of trading appetite among market players.

Despite challenging global conditions, producers in South Korea managed to maximize operating rates at their benzene units as the price spread over feedstock naphtha has stayed healthy throughout the year at an average of \$195/tonne, well above the \$120/tonne breakeven level, industry sources said.

Meanwhile, toluene prices became firmer than benzene given strong demand from the gasoline sector, squeezing the margins for toluene disproportionation (TDP) units, which were then forced to cut benzene production for the most part of 2015.

Toluene prices typically rises above benzene during the gasoline-blending season, which went on longer than expected this year.

In 2016, benzene prices are expected to track upstream crude values, which are largely expected to face further downward pressure amid an oversupply in global production. The magnitude of benzene's price decline, however, is not expected to be as steep as that of crude, industry sources said.

In the second half of the year, Asia will have an incremental benzene capacity totaling 1.54m tonnes/year. (Please see table below)

A positive benzene-naphtha spread will encourage producers to continue running their facilities at high rates, market

sources said, but they cautioned that 2016 may see repeat of strong gasoline-blending demand, which will mean lower benzene production from TDP units.

Market players will also be keeping a close watch on the performance from downstream paraxylene (PX) and purified terephthalic acid (PTA) sectors to determine the overall margins for aromatics production.

"India will most likely seek outlets to the West as there are not so much demand in southeast Asia to absorb such large quantities," said a southeast Asia trader.

"We are expecting coal-based benzene production in China to [to weaken], following concerns from the Chinese government about serious air pollution

problems in the country from the factories," a Singapore-based trader said.

China's coal-based benzene plants were running at an average rate of around 48% in 2015. With lower benzene production in China, opportunities for more imports will likely open up, market sources said.

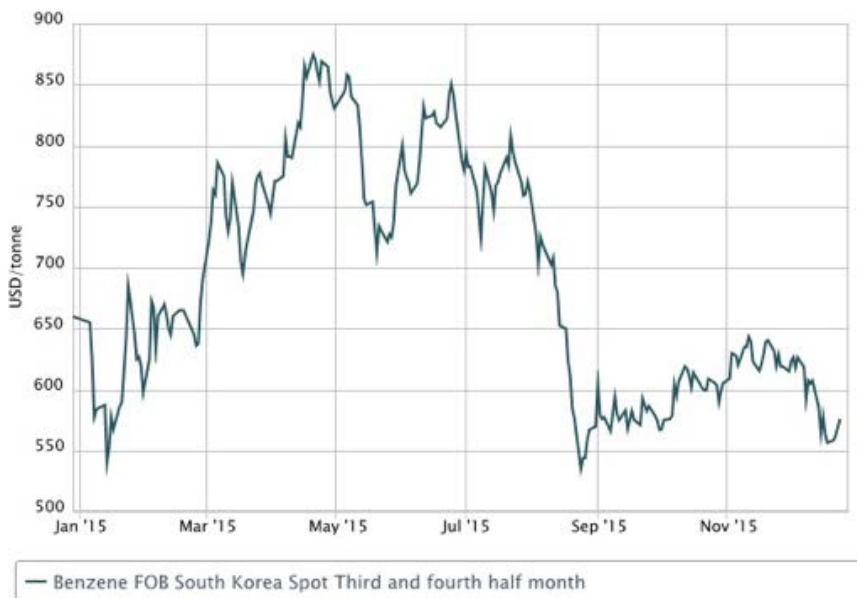
In 2015, SM – a key downstream of benzene – had a good run with its price spread to benzene widening to above \$700/tonne in mid-May, while the full year average stood at \$408/tonne.

SM margins are expected to remain healthy even as strong ethylene prices could weigh on the market, with plants expected to continue running at high rates.

In the key China market, SM capacity will increase by 660,000 tonnes/year in 2016 and translate to higher benzene demand, which should stay strong in the second and third quarter, during the manufacturing season, market sources said.

In the downstream phenol/acetone and caprolactam sector, margins turned negative this year, while another

Company	Location	Benzene (kt/year)	Start-up
ONGC Petro-additions Limited (Opal)	Dahej, India	150	Apr-16
Sadara Chemical	Al Jubail, KSA	150	Q2 2016
Showa Shell	Yokkaichi, Japan	70	Jul-16
Reliance Industries Ltd (RIL)	Jamnagar, India	500	Q3 2016
Hyundai Chemical	Daesan, Korea	500	Oct-16
Petro Rabigh II	Rabigh, KSA	170	Q4 2016



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downstream methyl di-p-phenylene isocyanate (MDI) sector just broke even.

Widespread production cuts in phenol plants due to poor margins in acetone in 2015 led to much reduced average operating rates in Asia at below 70% late this year, industry sources said.

Phenol players expect market conditions to remain tough in 2016, with more plants coming on stream amid poor demand for

downstream bispheno-A (BPA).

In the caprolactam market, an additional 80,000 tonne/year of capacity is coming on stream in China in the first and third quarter of 2016. However, because of prolonged poor spreads against benzene, caprolactam producers may find difficulty starting up their facilities on schedule.

Meanwhile, a number of key MDI importers in China estimated the

average run rates at their facilities in 2016 to average around 80-85%, largely unchanged from 2015.

In southeast Asia, the benzene market's supply-demand balance has been disrupted by Shell's force majeure at its Bukom cracker complex on 1 December. The condition was expected to continue through the first half of 2016, industry sources said.

Given a resulting lack of ethylene and propylene feedstock, maximizing styrene and phenol productions in the region will be difficult, and consequently lead to reduced consumption of co-feedstock benzene.

Uncertainty over the production status of downstream plants of Shell's cracker complex has stalled many import contract discussions in Singapore.

In Thailand, PTT Phenol has delayed the start-up of its new 250,000 tonnes/year plant to March 2016, thereby creating some pressure for producers and traders of benzene to find alternative sales outlets in northeast Asia.

Market players said that 2016 will be more of a spot market for benzene since lesser term volumes were concluded in northeast and southeast Asia.

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### ASIA TOLUENE OUTLOOK UNCERTAIN ON FLUCTUATING MARGINS

By: Trixie Yap | 23 December 2015

SINGAPORE (ICIS)—Asia's toluene outlook for 2016 is uncertain as a result of fluctuating downstream margins and a possible uptick in Chinese import demand after some parts of the country undergo changes in gasoline specifications, market players said.

While supply additions will be minimal in the market in Asia-Pacific – outside of China – it is likely that material availability will be highly dependent on the downstream operating rates, they added. Should downstream plants cut their run rates, the likelihood of an increasing supply for 2016, is likely, market players said.

However, if demand for gasoline continues to be as strong as 2015, more toluene could be placed into the blending sector instead of being available for the spot market, a key northeast Asian producer said.

A key downstream market for the usage of toluene since the second half of 2014 was for downstream benzene and xylenes production, traders said, adding that a large portion in the northeast Asia had been allocated for toluene disproportionation (TDP) and selective TDP units.

Prior to the start-up of Ulsan Aromatics Co, a joint venture between South Korea's SK Global Chemicals (SKGC) and Japan's JX Nippon, exports from South Korea were typically at 70,000-100,000 tonnes/month.

However, after the start up, exports decreased by more than 30-40% to 40,000-50,000 tonnes/month, trade data showed.

The country turned into a net importer, instead of a net exporter, with average operating rates of downstream TDP, STDP and HDA units at above 70% for the whole of 2015, according to ICIS data. However, it is uncertain whether these plants would still be running at such high rates going forward into 2016, because of



the poor benzene-toluene spreads, market players said.

The price difference between the two started decreasing in December 2014, narrowing to flat or negative since August 2015.

It hit close to a five-year low of \$62-83/tonne in the week ended 9 October 2015, according to ICIS data. The last time it was negative was in April 2012.

Even though paraxylene-toluene spreads have been largely healthy throughout the year – above \$200/tonne in most parts of the year, some traders were worried that the poor benzene spreads will have an impact on these downstream run rates, since benzene is still considered a by-product.

Already, some producers – both in northeast and southeast Asia region – have indicated their desires to try idling their downstream plants in the following year.

“The netback to sell toluene is better compared with the economics to offload spot benzene or PX in the market,” one producer said.

The naphtha-toluene spread of more than \$150/tonne – \$50/tonne higher than the typical breakeven level of \$100/tonne for most producers – also makes it more sensible for integrated plants to consider

selling toluene instead, traders said. Despite the possibility of an increase in spot availability for 2016, there are expectations that Chinese demand could start getting better after a switch in gasoline specifications from GBIV to GBV get implemented in coastal cities by the end of 2016, market players said.

GBIV and GBV refer to Guobiao 4 and Guobiao 5 gasoline standards in China, which is equivalent to Euro 4 and Euro 5 standards.

Domestic Chinese traders are expecting to see an increase in the off taking activities not only for toluene, but also for mixed aromatics and mixed xylenes, as the country moves towards cleaner fuel standards.

Already, the refineries in the Jiangsu province are starting to shift their production to GBV fuel, according to ICIS China data.

Therefore, sellers outside of China were hopeful that this could continue to result in strong import demand from both traders and also end-users, which was what had happened since the September period.

Doubts were still evident on some market players' minds because of weak demand from other downstream markets such as toluene di-isocyanate (TDI), which could



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result in more availability in domestic China if the average run rates of these plants continue to stay at 50-60% in 2016.

“There is no expected rise in demand for the following year, after BASF’s Europe plant started up so the majority of TDI makers are maintaining a cautious

stance for now and still deciding whether to continue buying the same amount of [toluene] feedstock as this year,” a Chinese TDI maker said. A wave of uncertainty, as a result, continue to plague the market because of these varying factors.

“The only thing for sure is that contractual negotiations for 2016 had already been concluded at a higher premiums than 2015,” a southeast Asia-based trader said, adding that this shows the “optimism that most people are having for next year”.

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### ASIA SM MARKET FACES HEIGHTENED UNCERTAINTY

By: Clive Ong | 23 December 2015

SINGAPORE (ICIS)—Asia's styrene monomer (SM) market is facing heightened uncertainties in the new year, following a roller-coaster ride that kept market players mostly on the sidelines in 2015, industry sources said. After falling sharply from late-2014 into the first quarter of this year, SM rebounded in the second quarter. But the uptrend was short-lived as prices tumbled in August amid the global commodities and equities sell-off.

Many traders have decided to close their books for the year in the fourth quarter, with trade tapering off and liquidity in the market drying up. Market players remain uncertain how 2016 will pan out, resulting in slow progress in contract negotiations. SM buyers are lobbying for bigger discount for term contracts, citing prevailing weakness in the downstream styrenic resins and synthetic rubbers markets.

"We are asking for a larger discount or lower volume since the rubber market is set to worsen in 2016," said an southeast Asia-based end-user.

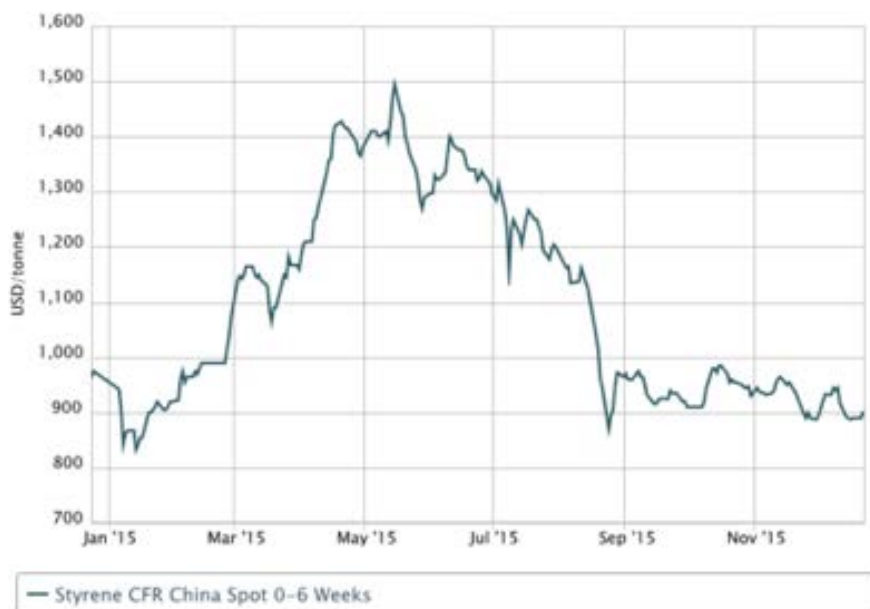
SM is a liquid chemical used to make resins such as polystyrene (PS) and acrylonitrile-butadiene-styrene (ABS); as well as synthetic rubbers such as styrene-butadiene-rubber (SBR), styrene-butadiene-latex (SBL) and styrene-butadiene-styrene (SBS).

"Next year's contracts are difficult to conclude as there is a gap between buyers and sellers' ideas," said an SM buyer in Taiwan.

Suppliers, on the other hand, are trying to obtain a premium on 2016 contracts, with some citing prevailing tight supply of feedstock ethylene. Market players remained concerned over the demand outlook for SM given the weak economic expansion across Asia, the eurozone and emerging markets.

Weak demand in the downstream resins and rubber sectors is expected to persist into the first half

of the year. In the key China market, softer domestic demand and weak exports will dampen resins demand and consequently,



reduce SM consumption. But at least capacity was not expanding rapidly during a period of weak demand, market sources said. Difficulties in sourcing feedstock ethylene could also constrain SM production and reduce inventories in the system.

"Supply will unlikely be excessively ample next year although demand from downstream markets is weak," said a Singapore-based trader. Deep-sea cargoes hailing from the US, as well as Middle East, will continue to feature in the Asian SM market next year although arbitrage opportunities will probably be sporadic and unpredictable.

"Many players are very cautious about 2016. So are we," said an SM producer in Taiwan.

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### ASIA PX PRICE SWINGS HINGE ON GASOLINE, PTA DEMAND

By: Paul Lim | 6 January 2016

SINGAPORE (ICIS)—Asia's paraxylene (PX) market may remain balanced-to-short in supply this year, with price movements largely to be determined by demand from the main downstream purified terephthalic acid (PTA) sector and gasoline blending values, industry sources said.

Market fundamentals are not likely to change much, the sources added. PX production capacity growth has slowed to a trickle, with start-ups of new plants in northeast Asia mostly completed by the third quarter of 2015.

Only 1.8 m tonnes of new PX production capacity is expected in 2016, compared with nearly 7m tonnes of new capacity that came on stream in 2015.

India's Reliance Industries will start up its 1.8m tonne/year PX unit in the second half of 2016, although the exact date has still not been fixed, company sources said. "Reliance's new PX capacity will likely feed India's PTA plants and may not affect [the regional] market supply that much," a market source said.

Other potential PX start-ups include Sinochem Quanzhou's 800,000 tonne/year plant and Sinopec Hainan's 600,000 tonne/year unit. But market sources largely expect these plants to come on stream in 2017 as they have yet to be completed.

Meanwhile, uncertainties in the operational status of some plants could also weigh on market sentiment going into next year.

No restart dates were set for Jurong Aromatics Corp's 800,000 tonne/year PX unit in Singapore, as well as for Dragon Aromatics' 1.6 m tonne/year facility in China.

In Indonesia, Trans Pacific Petrochemical Indotama (TPPI) has started production of refined oil products, but its aromatics and PX output is still not confirmed.

Producers in northeast Asia are likely to

### 2016 Asia PX plant turnaround schedule

Company	Location	Capacity (tonne/year)	Date
SK Global Chemical (SKGC)	Ulsan	350,000	April
SK Global Chemical (SKGC)	Ulsan	450,000	June
SK Global Chemical (SKGC)	Incheon	1,300,000	Sep-Oct
SK Global Chemical (SKGC)/ JX Joint Venture	Ulsan	1,000,000	Oct-Nov
Hanwha Total	Daesan	700,000	April
Idemitsu Kosan	Tokuyama	214,000	Sep-Nov
JX Nippon Oil & Energy (naphtha) Chita	Chita	200,000	May-Jun
JX Nippon Oil & Energy Kawasaki	Kawasaki	350,000	Jul-Sep
JX Nippon Oil & Energy (Kyushu Oil) Oita	Oita	420,000	May-Jun

maintain present operating rates in 2016 - 80-85% in Japan and 90% in South Korea - with heavy PX turnaround seasons in April-May and September-October expected to impact production.

"There could be some supply-side issues in the first half of 2016 due to the numerous turnarounds going on in northeast Asia. It will likely see PX volumes being restricted during that period," a trader said.

Meanwhile, PX majors are consolidating in Japan, with announced merger plans between JX Holdings and TonenGeneral, and between Idemitsu Kosan and Showa Shell.

This could signal a significant shift in market fundamentals in northeast Asia next year, although there were still no clarity in final plans, market sources said. Major PX consumer China is expected to continue importing cargoes in 2016, as demand from domestic PTA plants will still outstrip local supply.

"Contract volumes from northeast Asian producers should remain stable, although the spot portion could be reduced," a major Chinese PX importer said.

"Part of this is because of a new major PX unit in China," the source said, referring to the newly started up 1.6 m tonne/year Ningbo Zhongjin, which started operations in September.

However, Ningbo Zhongjin's plant suffered a technical fault in the second week of December and is understood to be currently shut.

In China, Sichuan Chengda and Hanbang Petrochemical started up new PTA lines that could translate to higher demand for PX, but the overall market sentiment remains bearish, industry sources said. The PTA plants in China and South Korea may opt to run at reduced capacity because of weak demand, raising the possibility of rationalisation of operations among smaller units, they said.

"There will likely be more smaller-capacity plants which will have to stop operations due to poor production economics, especially if they have to continue purchasing PX cargoes at market prices," another market source said. (Please see table below) Whether or not a supply glut is seen in some parts of 2016 will depend on whether PTA plants in the key China market see comfortable spreads for



economical production. This depends on the PX-PTA spread, which had fallen from a comfortable \$80-110/tonne level in November to \$65-90/tonne by the second week of December.

It had seen dismal levels of \$30-50/tonne in July and August when Brent crude futures started dropping.

PTA producers typically target a \$90-110/tonne spread to ensure economical production.

Meanwhile, demand for gasoline is another factor that would sway PX fundamentals next year.

Northeast Asian producers expect strong gasoline demand to continue in Asia and the US, and divert the aromatics feedstocks for PX production, into the gasoline pool.

"Whether PX will continue to be tight will also depend on the mogas [motor

gasoline] value. If the mogas value continues to be economical, then PX production rates will dip," a producer said.

Meanwhile, the window for arbitrage trades from Asia to the US may open up amid reduced aromatics production the US, although no term contracts are understood to have been fixed.

The production economics of isomer mixed xylene (MX) and condensate-based PX producers would also likely be stable at the same level next year.

"Isomer-MX and condensate-based PX plants will likely see less than economical margins for PX production in 2016. This will cause them to run at lower operating rates in 2016, and in turn reduce PX supply," a northeast Asian producer said.

Price-wise, values are likely to continue tracking movements in upstream crude oil and naphtha, although the naphtha-PX margins should remain at the present

\$350/tonne level, producers said, even if crude oil continues to remain feeble.

"It will take an extended period of time before crude oil prices recover significantly. There are few upticks to be seen in the meantime," a source in China said.

"Supply of oil could continue to lengthen, even as Iran comes back on stream in crude production," a Japan-based downstream end-user said.

So far, one term contract for 2016 has been settled. An end-user confirmed that it had managed to obtain a further 50-cent discount to 2015 prices for a multiple-year contract.

Other contract negotiations for 2016 are ongoing, with bids from non-Asian Contract Price (ACP) buyers being quoted at discounts of \$4-5/tonne to the 50% ACP and 50% spot CFR (cost & freight) quotes.



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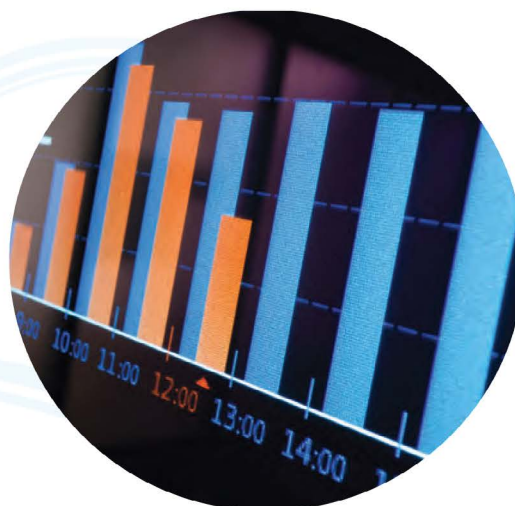


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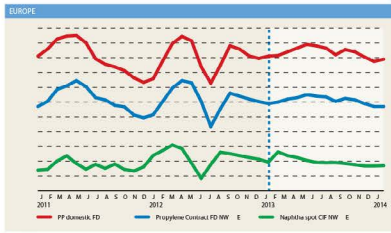


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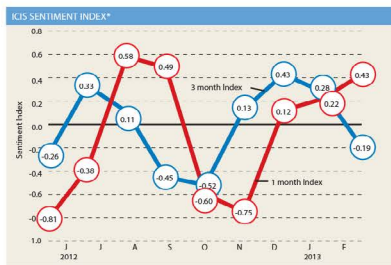
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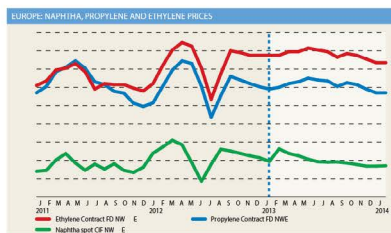
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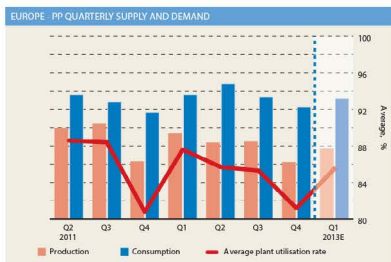
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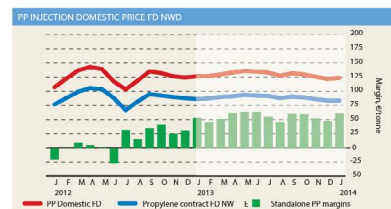
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### PX RUN RATES KEY TO ASIAN ISOMER-GRADE XYLENE DEMAND

By: Hazel Kumari | 6 January 2016

SINGAPORE (ICIS)--Demand for isomer-grade xylene in Asia this year will be determined by operating rates at existing, un-integrated downstream paraxylene (PX) plants, amid expectations that the supply of feedstock material will remain tight in 2016, according to market sources. Export volumes from Japan are expected to decline this year as four isomer-grade xylene producers will be merged into two companies to cope with poor macroeconomic conditions. Tonen General had agreed to a merger with JX Nippon Energy & Oil with the financial aspects to be finalised by August 2016. The two companies are currently Japan's largest refiners and were aiming to boost margins in the domestic petrochemical sector by reducing excessive aromatics supply to maintain balanced supply and demand conditions in the market. Meanwhile, JX Nippon Oil & Energy was planning to cut their excess refinery capacity, resulting in reduced export volumes.

Separately, Idemitsu Kosan Co and Showa Shell Sekiyu K.K have also agreed to consolidate their businesses by early 2016 to remain competitive in the

shrinking petrochemical domestic market. Elsewhere, term volumes from South Korea is expected to decline in 2016 as a key producer is expected to allocate higher volumes to the domestic market due to an improvement in demand.

Another producer will not be exporting cargoes on a contractual basis as they would be looking to supply their own PX facilities. Subsequently, some players expect the current snug isomer-grade xylene supply to continue into 2016 and hence were willing to settle their 2016 contractual negotiations at higher premiums. GS Caltex has committed a total of 108,000 tonnes of isomer-grade xylene to term at a premium of \$10/tonne for 2016, \$6/tonne higher than 2015. The cargoes are priced on a FOB Korea basis for term year starting in January.

Term buyers who had concluded the 2016 contracts were understood to be mostly trading companies, according to market sources. Supply for isomer-grade xylene in January would remain limited by the shutdown at Taiwan's CPC aromatics had shut their No 3 aromatics unit for a scheduled turnaround in late November. The company will not be restarting until January, curtailing spot availability of cargoes.

Moreover, isomer-grade xylene demand improves ahead of the Lunar New Year holidays in February.

Arbitrage movement of isomer-grade xylene from US to Asia will remain limited in the coming months as stable-to-firm gasoline blending demand would help support US isomer-grade xylene prices, making it unworkable for traders. The high production output maintained at various South Korean downstream PX plants may not necessarily equate to an overall increase in demand for isomer-grade xylene cargoes.

South Korean PX producers, with un-integrated facilities, might potentially cut run rates or idle units in response to the squeezed margins brought on by high feedstock costs and stiff competition. As a result, these end-users would be sitting on surplus feedstock inventories and will look at disposing their isomer-grade xylene cargoes in the spot market. Some market sources raised concerns that isomer-grade xylene consumption would weaken into the year as a slowdown in China's economy would hamper appetite for import volume. Most players agreed that the spot trading arena would continue to take its direction from the upstream crude and naphtha sectors for direction on prices, resulting in the current volatility in the market.

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# RUBBER

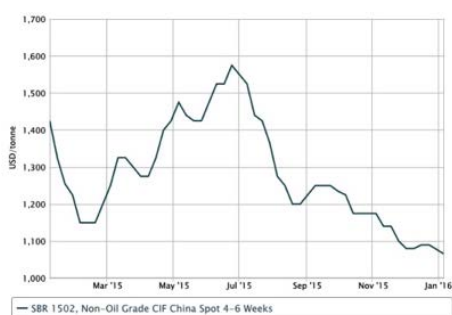
## STYRENE BUTADIENE RUBBER

### ASIA SBR DOWNTREND MAY BE TEMPERED BY BD REBOUND

By: Helen Yan | 11 January 2016

SINGAPORE (ICIS)—Asia styrene butadiene rubber (SBR) prices may still fall further on weak demand but its downward trend is likely to be tempered by the recent rebound in the feedstock butadiene (BD) price, market sources said.

Non-oil grade 1502 SBR prices fell to an average of \$1,065/tonne CIF (cost, freight and insurance) China on 6 January 2016, down by 10% from an average of \$1,175/tonne CIF China in early November 2015,



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ICIS data showed.

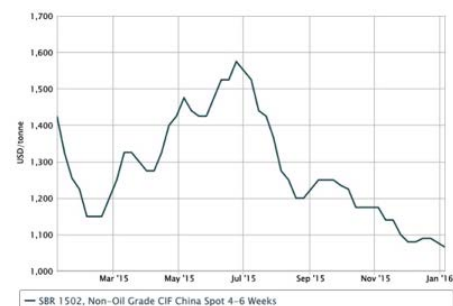
However, the feedstock BD price recently rebounded following the disruption in BD supply from Shell's force majeure (FM) on its cracker at Bukom, Singapore, in early December last year.

Shell's 960,000 tonne/year cracker and 155,000 tonne/year BD unit may be shut for up to four to six months, market sources said.

The prolonged and unplanned Shell cracker outage, had bolstered BD prices as traders snapped up BD sales tenders. Feedstock BD price rose to an average of \$780/tonne CFR (cost and freight) northeast (NE) Asia on 8 January 2016, up by 13% or \$90/tonne since 4 December 2015, ICIS data showed.

However, the prevailing weak demand for SBR is a concern for many SBR producers, who said the recent BD price rebound may be short-lived, given the depreciation of the Chinese yuan against the US dollar, weak crude oil and natural rubber (NR) prices, market sources said.

SBR and NR are substitute raw material in



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the production of tyres for the automotive industry. China is the world's largest automotive market and world's second largest economy.

"Demand for SBR will remain poor in the first quarter as the downstream tyre factories in China are mostly operating at reduced rates because of the weak tyre export market and poor macro-economic conditions," a Chinese SBR producer said. Stiff anti-dumping duties (ADD) imposed on China tyres by the US authorities have hurt the Chinese tyre sector, prompting several local Chinese tyre factories to cut production output, market sources said. The upcoming Lunar New Year holidays in



Corporation/REX Shutterstock

early February are also expected to further weigh on demand for SBR as factories will shut for the holidays. Lunar New Year starts on 8 February this year. Factories in China usually shut for about one week for the Lunar New Year holidays.

However, there is talk that some tyre factories may shut for up to one month this year, given the prevailing weak macro-economic conditions and a slowing Chinese economy, market sources said. Caixin's general manufacturing purchasing managers' index (PMI) for China in December dropped to 48.2 from 48.6 in November, indicating deteriorating operating conditions for the 10th straight

month, the Chinese media group said on Monday.

A PMI reading above 50 indicates an expansion in manufacturing activity, while a reading below 50 denotes a contraction. "We hear that some tyre factories in China may start to shut from late January till late February," a trader said.

Apart from waning Chinese demand, a supply glut in the Asian SBR market continues to exert downward price pressure, market sources said.

Competition from deep-sea suppliers from Eastern Europe and Iran had added to the woes of Asian SBR producers.

"The US dollar has strengthened against

most Asian currencies, including the Chinese yuan, so Chinese buyers will be asking for lower SBR prices from the Asian suppliers as well," a trader said. Spot offers of Russian and Iranian material are about \$100/tonne cheaper than Asian product, thus putting pressure on Asian SBR makers to lower their prices in a bid to retain their market share, market sources said.

"How can we compete with the deep-sea suppliers, Asian SBR makers may have to consider further cuts in their production rates, given the current weak buying sentiment," an Asian SBR producer said.

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# FIBRE CHAIN

## PURIFIED TEREPHALATIC ACID (PTA)



### ASIA PTA EXPORTS SEEN RISING, FUNDAMENTALS TO IMPROVE

By: Paul Lim | 6 January 2016

SINGAPORE (ICIS)—Asia purified terephthalic acid (PTA) market can expect a slightly more optimistic outlook for 2016, with an expected increase in exports, and more balanced demand supply situation, industry sources said.

While the oversupply situation would likely remain, a slowdown in the growth of production capacity would also mean that demand from downstream users would catch up with PTA supply. So far, about three new PTA plants are expected to start up in 2016.

China's Hanbang Petrochemical is targeting the start-up of a 2.2m tonne/year PTA line in Jiangyin in the first quarter of 2016.

Sichuan Chengda is targeting to start up a 1.2m tonne/year PTA line in Chengdu. In India, JBF Industries plans to start up a 1.1m tonne/year PTA line by the end of the first quarter in New Mangalore.

Industry sources expect the new production capacities to be balanced out by more rationalisation and adjustment in the PTA market.

"Non-integrated producers who face high feedstock costs and lower production efficiencies could continue to reduce operating rates," a trader said. Capacities that were removed from the market in 2015 are also not expected to come back into the picture. These lines, such as Zhejiang's Shaoxing Yuandong and Fujian's Jialong Petrochemical, have been removed from market fundamentals analysis by industry sources.

The sole PTA production line that could still start up and cause market fundamentals to shift would be Xianglu Petrochemicals, market sources said, although the chances of it starting up soon remains slim as discussions with state-owned refiner Sinopec are in progress.

Xianglu Petrochemical had shut its PTA plant in April 2015 after an explosion at a neighbouring plant, Dragon Aromatics. Xianglu Petrochemical has a significant

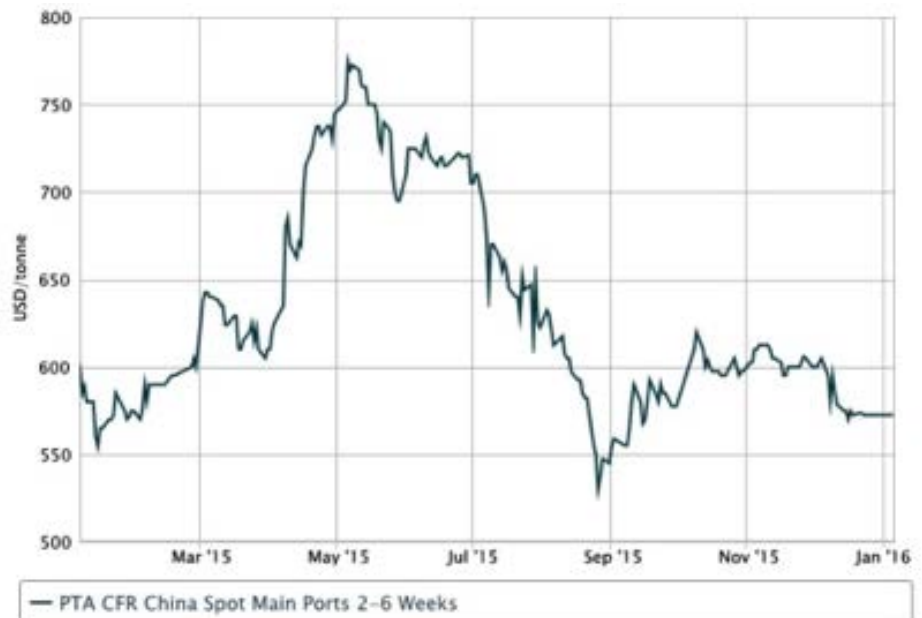
production capacity of 4.5 m tonne/year. Presently, Sinopec is in discussions with Xianglu to buy it over, market sources had said in the past.

The South Korean PTA industry is also facing strong competition from ex-importer China.

Sources in South Korea said that the government was assessing merger and restructuring plans for the domestic South

eases. All these have added up to a more optimistic outlook for China's PTA industry, where producers are expecting better margins in 2016.

The liquidity of ex-China Main Port (ex-CMP) cargoes could also increase in 2016, sources said, as China reduces its dependence on import cargoes. Ex-CMP cargoes are domestically-



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Korean industry.

While exports to traditional market Europe would probably remain, South Korean PTA producers would face less sales outlets in Asia due to the competitiveness of China-origin cargoes.

This would see them focusing more on the domestic and European markets, with a likelihood of reducing operating rates if necessary.

On the demand side, the polyester industry in China is expected to continue growing in 2016, although it could be at slower rates than before, market sources said.

This increase in demand would likely support PTA prices as the drawdown in China's inventory levels continue and the increases in PTA production capacity

produced PTA cargoes sold on a US-dollar basis to end-users or traders.

Such cargoes must be produced from imported paraxylene (PX) volumes from northeast Asian countries such as South Korea and Japan.

Restrictions in PX imports by PTA producers also mean that ex-CMP cargoes could remain limited. Market sources said that these cargoes could be delivered quicker to buyers, who would also enjoy cost-savings on storage and administrative charges compared to imported material.

This is expected to have an impact on prices for imported materials. An increase in export volumes is expected in 2016, with market participants looking towards trade on a FOB (free on board)-basis as a potential space of growth,

especially with major importer China looking for sales outlets for locally-produced goods.

The Middle East could be the next battleground for Asian PTA producers, which must look for new customers in uncharted territories as traditional sales outlets remain thin.

Producers in China and India are targeting the Middle East as a potential major market from 2016 onwards even as their domestic markets reduce their appetite for imported material.

These plans put them in direct competition with South Korean PTA producers, which have traditionally been the primary suppliers to end-users in the Middle East. This will also mean an increase in FOB China and FOB India trades, as market dynamics shift gradually to export-oriented trade flows.

Producers in south Asia are likely to have cost advantages when moving cargoes to the Middle East. Proximity between the two regions means lower freight costs and faster shipping times, market sources said.

Market conditions in non-Asian markets also continued adjusting, with a flurry of sales and purchases picking up in the fourth quarter of 2015.

In Europe, Indorama Ventures announced its purchase of Cepsa Spain's 325,000 tonne/year PTA unit, together with 220,000 tonne/year purified isophthalic acid (PIA) unit and 175,000 tonne/year polyethylene terephthalate (PET) unit. In the US, BP offered for sale its Decatur 1m tonne/year PTA unit. It also has a PX unit on site.

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# FIBRE CHAIN

## POLYETHYLENE TEREPHTHALATE (PET) AND RECYCLED POLYETHYLENE TEREPHTHALATE (R-PET)



### ASIA PET AND R-PET SEEN WEIGHED DOWN IN 2016

Hazel Goh | 28 December 2015

SINGAPORE (ICIS)—Asian polyethylene terephthalate (PET) market in 2016 is expected to be weighed down by overcapacity concerns and uncertainty in crude oil prices, a continuation of conditions from 2015, with recycled (R)-PET market seen as stable to weak, sources said.

PET producers expect to face continuous challenges in balancing their sales-to-output ratio amid overcapacity. The overcapacity situation in the market had hindered operations of some plants in 2015 and some producers expect this situation to repeat itself in 2016.

The severity of the overcapacity situation was felt strongest during the typical demand lull in the fourth quarter of 2015 and had resulted in some producers to postpone the start-ups of their new plants. Egyptian producer EIPET stopped its 225,000 tonne/year capacity plant in Ain Sukhna, Egypt due to debt restructuring in 2015. Its other 225,000 tonne/year capacity plant at the same site was mechanically ready but has never actually started up.

EIPET expects to reach a conclusion with the banks in early 2016 and thereafter, production should start. Indian manufacturer Micro Polypet started its 216,000 tonne/year plant in Panipat, India in September 2014. However, operations was heard to be intermittent for a few months and later were completely stopped in 2015, only to be acquired by Indorama in December 2015. Having a global presence and experience in the PET market, Indorama plans to start up its newly acquired plant in India in December 2015. Indorama plans to mainly sell in the India domestic market with the PET produced by the plant. Saudi Arabia's SABIC started its new 420,000 tonne/year capacity plant in Yanbu, Saudi Arabia in 2015 and later in the year, their overall operating rates lingered at 60-75% capacity to avoid inventory build-up. This is expected to continue into 2016.

Several producers in China also reduced their operating rates towards end 2015 amid poor PET margins during the

seasonal demand lull. Some lines were kept shut after plant maintenances in November 2015, and some additional lines were shut or operated at lower operating rates in Q4 2015.

Some of these lines started up in December 2015, while more are expected to return by the first quarter of 2016 as demand should return by then for the next seasonal peak. In Asia, the PET market is expecting new plants from Chinese producer Jiangsu San Fang Xiang Industrial Group and Zhejiang Wankai New Materials. San Fang Xiang expects to start its new 500,000 tonne/year capacity in Jiangsu, China in the third quarter of 2016, which was originally planned for the fourth quarter of 2015.

Wankai expects to start its new 500,000-600,000 tonne/year capacity in Haining, Zhejiang, China in the fourth quarter of 2016, which was originally planned for the second quarter of 2016. On the demand front, market participants broadly expect yearly global demand growth to continue at a rate of 4-6% as with previous years, with slower growth of 2-3% in developed countries and higher growth of around 8% or more for developing countries.

With overcapacity, some producers think that competition will be stiff in the coming year and a couple of producers said they will focus their export sales regionally to reinforce their market presence in their "home ground". To handle the uncertainty in crude oil prices and feedstock purified terephthalic acid (PTA) and monoethylene glycol (MEG) cost, most producers said they will be cautious amid squeezed margins. When upstream and feedstock prices are on an uptrend, PET producers will feel the strain of higher production cost when conducting their sales.

In a related market, the recycled PET (R-PET) market outlook for China is stable-to-bleak in 2016 as market participants are not optimistic for the market situation to improve. R-PET prices and sentiment is affected by virgin PET prices. As virgin PET prices were trending down in the fourth quarter of 2015, R-PET buying sentiment was affected and prices slid down.

A buyer and a trader were heard to exit the R-PET market amid poor market conditions. These negative sentiments are

also felt on the producers' end as some producers said they are facing squeezed margins as their feedstock PET bottle bales or post-consumer bottles cost had not come down with R-PET prices.

Demand peak and non-peak season are expected to be less obvious as some downstream recycled polyester manufacturers plan to run their plants at stable operating rates, while their end-product inventories will be low or high depending on the downstream demand pattern.

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### ASIA MEG FACES CHALLENGES ON CHINA ECONOMY, CRUDE

By: Eric Su

SINGAPORE (ICIS)—Asia monoethylene glycol (MEG) market is expected to face challenges this year due to uncertainty about China's economic performance, volatile crude oil and slow growth in downstream polyester fibre and polyester terephthalate (PET) sectors.

In 2015, there was an increase in MEG supplies in the second half of the year upon the completion of turnarounds in major MEG facilities in the Middle East. Coupled with decreasing crude oil values and a slowdown in downstream polyester demand, MEG prices came under pressure, subsequently falling to their lowest levels since 2009 after the global credit crunch.

Nonetheless, most market participants said the price decrease was less sudden as compared to 2009 and the conditions were not as dire.

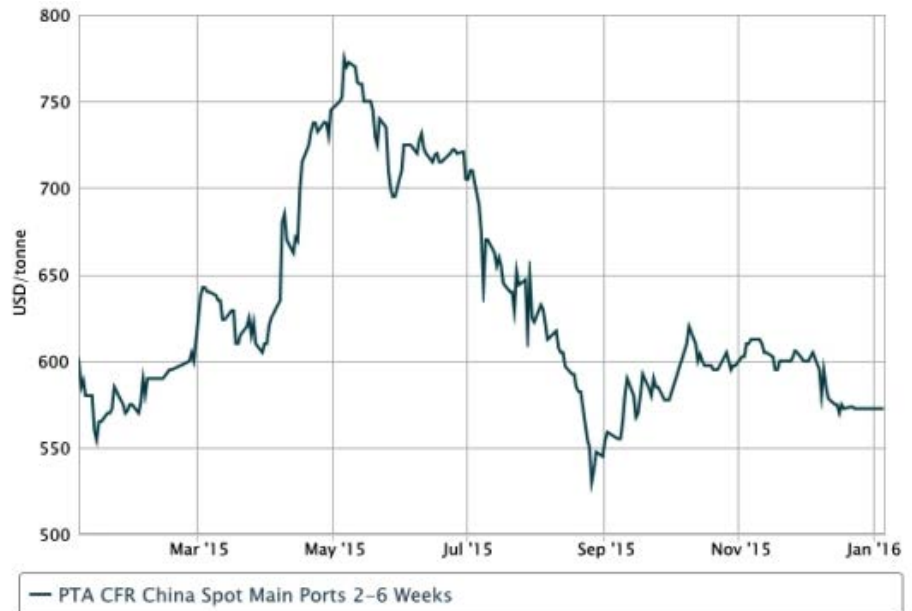
MEG average spot prices stood at \$718.5/tonne CFR China Main Port (CMP) in early January 2015, subsequently rising to \$1,020/tonne CFR CMP in early May, the highest point in 2015.

The growth in prices during that period was driven by the combination of a sharp drop in Chinese port MEG inventory levels and increased demand for polyester markets.

However, the second half of the year, saw a reverse in the trend, as MEG spot prices began to slump, eventually ending the year at \$575/tonne CFR CMP in end December, losing over 43.6% of its value from May to December.

Facing increasing cost pressure, MEG producers began a series of production cuts which are expected to be maintained in the first quarter of 2016, resulting in concerns of tighter supply during that period.

Taiwan's Nan Ya Plastics, a major exporter of MEG to China, brought forward the maintenance of its 720,000 tonne/year No 4 monoethylene glycol (MEG) unit in Mailiao to 28 December for maintenance from April 2016.



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The turnaround is expected to last around a month until early February.

The company's contracted export volumes for the first quarter of 2016 will be reduced to around 50%, the source said.

South Korea's Lotte Chemical shut its 160,000 tonne/year No 3 monoethylene glycol (MEG) unit in Yeosu on 10 December because of economic reasons. The restart of the unit was postponed to early February 2016 from the original planned period of early January 2016.

Shell declared force majeure (FM) on supply of monoethylene glycol (MEG) from its 750,000 tonnes/year Singapore plant in early December.

The FM was said to last for 6 months, according to market sources. January contract volumes to China was expected to be reduced. No further updates have been available since then.

Taiwan's China Man-Made Fibre Corp (CMMFC) has shut its 200,000tonne/year monoethylene glycol (MEG) unit in early January.

The plant at Kaohsiung was taken off line for maintenance, the source said. The timeline for the plant's restart was not immediately available.

Major producer ME Global has also reduced its export volumes to China in the first quarter from its EQUATE facilities, following instability in feedstock supply, market sources said.

Another major MEG producer SABIC, were also heard to be planning a reduction in spot volumes for export into China, according to market participants. Following an increase in feedstock ethane prices in Saudi Arabia starting in 2016, MEG facilities in Saudi Arabia will be facing higher cost pressure.

However, most market participants said that Middle Eastern facilities will still enjoy a cost advantage over MEG facilities purchasing naphtha or ethylene for MEG production.

However, for the longer term, supply of cargoes was expected to increase as production output from Iran rises in the second quarter of 2016.

Iran's Morvarid Petrochemical Company is expected to run commercial operations at its new 550,000 tonnes/year in the second quarter of 2016, market sources said. However, it is not clear whether the bulk of the additional MEG cargoes would be exported to China or Europe, other sources said.



In terms of demand, near term demand for MEG is set to face downward pressure ahead of the Chinese New Year holidays. Several polyester facilities have announced plans for shutdown during the Chinese New Year period (7-13 February) and this would likely lower demand for MEG cargoes.

Challenging conditions in the Chinese market have also dampened market sentiment.

Concerns have been raised over the slower growth of China and most market participants said they were not optimistic about the outlook in 2016. There were several polyester plants in

China that were not doing well and many of these plants have been facing poor profitability and debt issues. If such a situation persists in 2016, it would be difficult to see an improvement in the polyester sector.

Subsequently, this would lead to lower demand for MEG as well, an MEG producer conceded.

At the moment, there are too many uncertainties regarding the market and too many factors will can affect prices, a trader said.

From crude oil prices to fluctuation in the Chinese stock market and lacklustre performances in the polyester sector, it

seems like the price direction of MEG seems to be driven by a different factor at various parts of the year, the trader added. The MEG market has evolved to a much more dynamic market as compared to a few years ago.

On top of market fundamentals, macroeconomic conditions and performances of future prices have also increased their influence on spot prices. As such, it had been increasingly difficult each year to gauge how the MEG market will perform, other traders commented.

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### ASIA'S AMINES FACE AMPLE SUPPLY, SHRINKING DEMAND

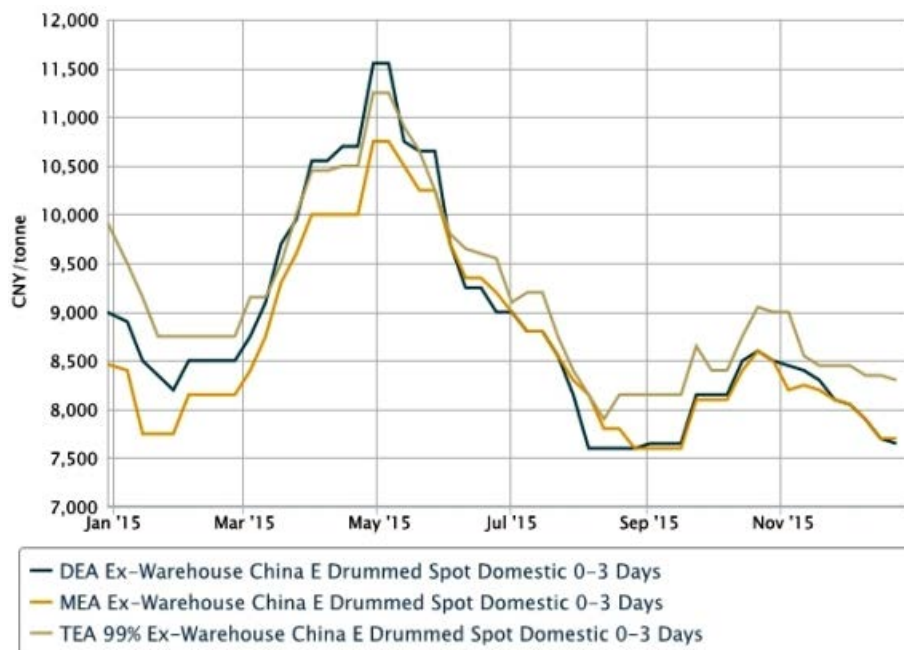
By: Felicia Loo | 30 December 2015

SINGAPORE (ICIS)—Asia's ethanolamines markets are expected to weaken in 2016, as key importer China faces a sluggish economy and a regional supply deluge is expected to persist, market participants said.

At the close of 2015, prices of monoethanolamines (MEA) fell to yuan (CNY) 7,700/tonne EX-Warehouse (EXW) during the week ended 23 December, down by about 8% from the beginning of this year during the week ended 7 January, according to ICIS data. Over the same period, both diethanolamines (DEA) and triethanolamines (TEA) prices slumped by 14% to CNY7,650/tonne EXWH and around 13% to CNY9,500/tonne EXW respectively, the data showed.

"The downstream demand is very bad. Now that there is no more anti-dumping duty [ADD], there will be more cargoes flooding the market [in China]," said one Chinese market participant. China eradicated the anti-dumping duty on MEA and DEA imports from Malaysia, Taiwan, Japan and the US in the middle of November. Demand has been sluggish owing to a shrinking Chinese economy, impeding the use of amines especially of TEA in the cement industry. Booking for the cargoes meant for end-January or early-February arrival cargoes is expected to stop ahead of the week-long Lunar New Year celebration in China on 7-13 February, market participants said.

Meanwhile, expectations of further depreciation by the Chinese yuan against the US dollar will likely weigh



on imports, they added. The US dollar has strengthened following the Federal Reserve's decision on 17 December to hike interest rates for the first time since 2006, betting on the relative strength of the US economic recovery.

The US is the world's biggest economy, with China coming in second. China is expected to maintain a loose monetary policy next year as the economy continues to exhibit signs of weakness, a major source of downward pressure on the yuan, an industry source said. The country's GDP will grow by 6.8% in 2016, while the GDP growth rate is forecast to be at 6.9% in 2015, according to a working paper by the People's Bank of China (PBOC) in mid-December. China's factories continued to contract in November based

on the country's official manufacturing purchasing managers' index (PMI) of 49.6, down from 49.8 in October, as new orders, exports and purchasing prices declined, according to Chinese government data. A PMI reading above 50 indicates an expansion, while a reading below 50 denotes a contraction in the manufacturing activities. Meanwhile, China and India are expected to see a surge in ethanolamines exports from the Middle East owing to a new plant, market participants said.

A Dow company source stressed that while the new ethanolamines plant in the Middle East will increase its supply flexibility, it said the new capacity will serve the markets in Asia and the Middle East for the most part.

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### ASIAN OXO-ALCOHOLS RECOVERY HINGES ON SUPPLY BALANCE

By: Michelle Lim | 8 January 2016

Oxo-alcohols prices in Asia could sometimes be mixed owing to different supply-demand fundamentals for n-butanol (NBA), isobutanol (IBA) and 2-ethylhexanol (2-EH).

However, all three products had been on a downtrend since May 2015, especially in November 2015 when 2-EH sank to record six-year lows of \$675/tonne CFR (cost & freight) east Asia and NBA hitting historical lows at \$510/tonne CFR NE (northeast) Asia since February 2005, according to ICIS data.

While prices of NBA have seen some slight recovery since mid-December 2015, in part triggered by a recovery in domestic Chinese prices, market sources were largely not expecting a buoyant spot market in 2016.

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“The recovery in domestic Chinese prices was largely due to curtailed operating rates and a series of plant shutdowns, which took place precisely because prices had fallen too much in the first place and producers were trying to reduce their losses,” said a China-based market player.



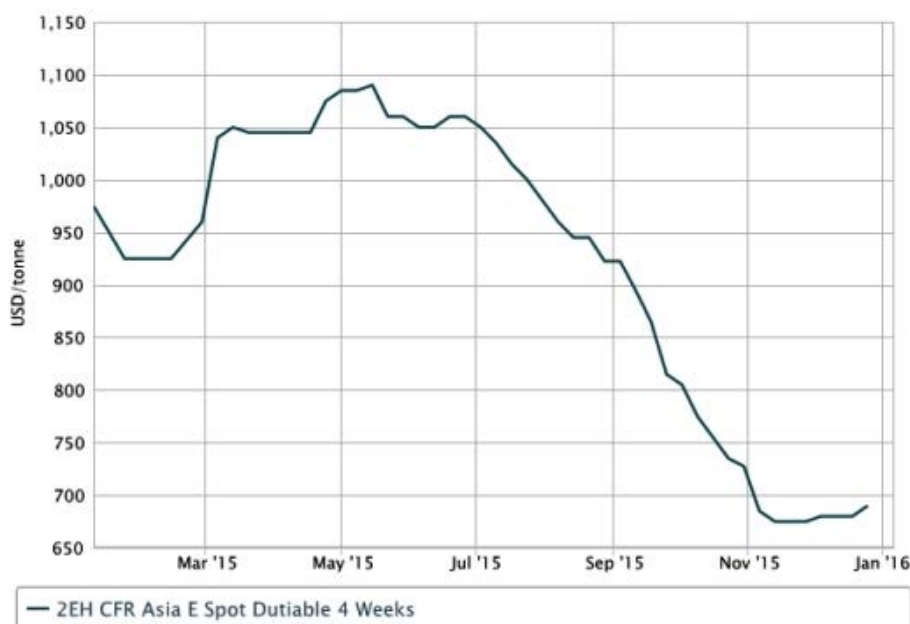
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“That has led to limited domestic supply which is expected to last till the Lunar New Year in the first half of February, which has in turn led to higher acceptance for spot imports,” the market player said.

“After February, we expect to see more domestic supply available in the market, especially when prices improve and it becomes more viable to increase production,” the player added.

New oxo-alcohol plants are scheduled to start up in the first quarter of 2016, including Lu Xi Chemicals’ 325,000 tonne/year plant in Shandong, as well as Anqing Petrochemicals’ 240,000 tonne/year plant in Anhui.

These downstream expansions will result in greater pressure on the market, industry sources said, coupled with sluggish demand from downstream plasticizers and solvent makers.

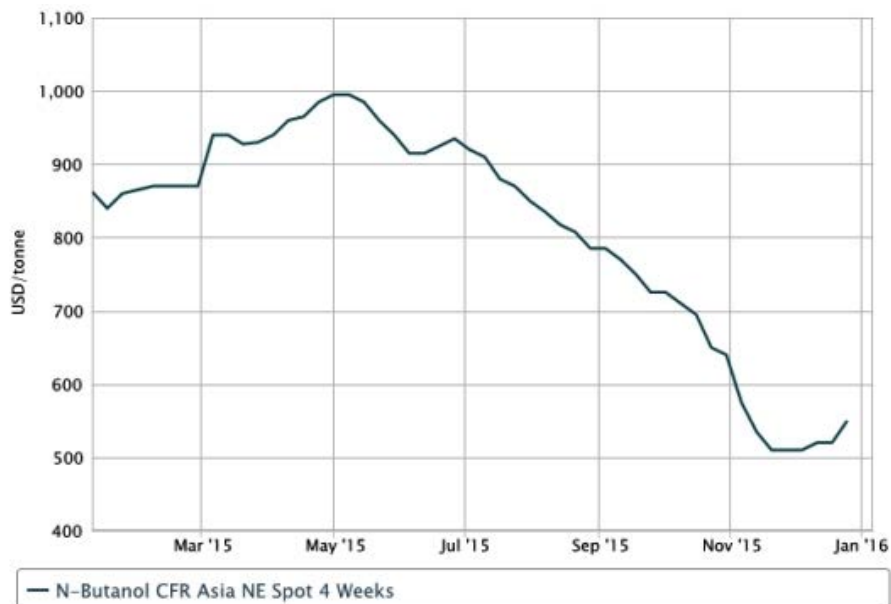


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The less-than-optimistic outlook for the market was worsened by the most recent plunge in crude values, when oil started off 2016 at fresh 11-year lows of below \$33/bbl.

On the other hand, spot sellers have been trying to lift prices, citing unsustainability at Q4-2015 price levels which have resulted in negative margins for sellers.

Suppliers from both northeast and southeast Asia have been limiting spot volumes in a bid to manage prices, said several sources, since the market appears to be enjoying some respite from the influx of deep-sea cargoes into northeast Asia.



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### ASIA METHANOL UNDER PRESSURE ON TRADE FLOW CHANGES

By: Yu Guo | 7 January 2016

SINGAPORE (ICIS)—Asia’s methanol market is likely to face downward pressures in 2016 as a result of significant changes in trade flows even though more methanol to olefin (MTO) projects are scheduled to start up in China during the year supporting demand growth.

More material is expected to flood Asian market particularly China from Latin America as a result of methanol capacity explosion in the US market.

The US methanol capacity surged by 76.5% in 2015 with the addition of around 3.5m tonnes/year of new capacities and expansions being brought on stream, according to ICIS.

With increased domestic supply in the US market, Latin American material - from Trinidad and Tobago in particular - has lost market share in the US and will have to find new outlets.

While other regions had been seeing limited growth potential, the majority of those material will head to Asia, players said. China may be the only market that will be able to absorb those additional volumes with more MTO expansions expected in 2016.

In 2015, the newly started MTO projects were the key downstream support to methanol demand in the key China market, with the startups of three MTO projects adding on approximately 4.2m tonnes/year of methanol demand in the merchant market.

However, the declining crude oil prices, which had been weighing on most petrochemical markets, had become more influential on methanol as a result of rapid MTO expansions.

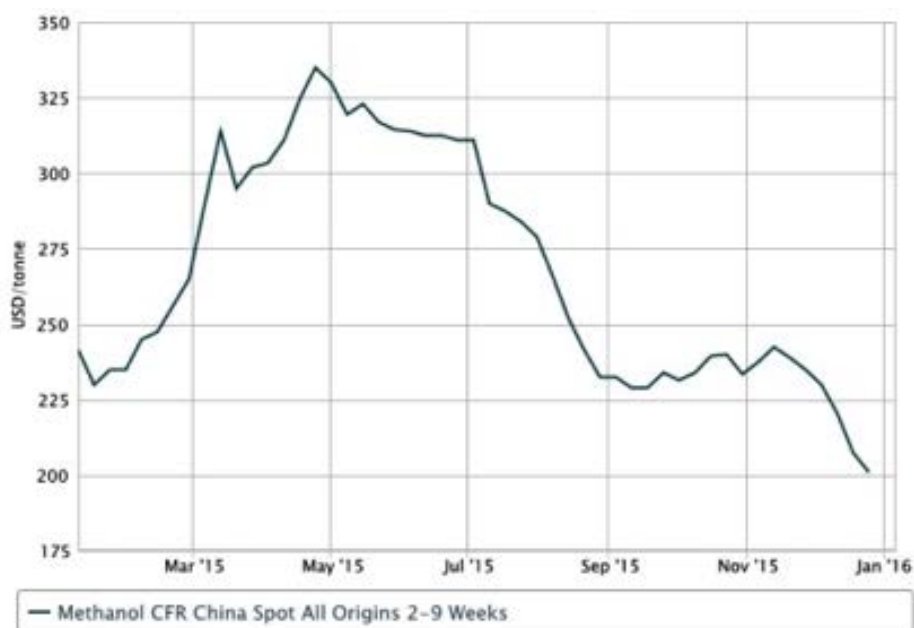
MTO plants as well as methanol to propylene (MTP) plants compete directly with the traditional naphthaEast for the most part.

based olefins, which have stronger price

CTO/P Projects	Methanol Capacity	Propylene Capacity	Ethylene Capacity	Target Commissioning
Huating Zhongxu Coal Chemical	600	200	-	Aug 2016*
Shenhua Coal (Xinjiang)	1800	300	300	Dec 2016
Inner-Mongolia Jiutai Energy Group	-	350	250	Mar 2016
Qinghai Salt Lake Industry Group	1000	170	160	Jul 2016
Inner-Mongolia Mengda New Energy Chemical Base	1800	300	300	Sept 2016

MTO/P Projects	Methanol Capacity	Propylene Capacity	Ethylene Capacity	Target Commissioning
Fund (Changzhou)Energy Chemical	-	165	165	Apr 2016
Shandong Dongrun Energy	-	50	50	H2 2016*
Shandong Yangmei Hengtong Chemical	-	180	120	Jul 2015
Shandong Daze Chemical	-	160	-	Oct 2016*
Shandong Beierte Energy	-	150	150	H2 2016*
Jiangsu Shenghong Group	-	473	360	Q3 2016
Zhejiang Xingxing Energy	-	390	300	Mar 2015
China Shenhua Coal to Liquid and Chemical Yulin Chemical	-	300	300	Dec 2015



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correlation with the crude oil prices. As a result, lower crude in 2015 exerted significant downward pressure on the methanol prices as MTO/P producers lowered their feedstock affordability in order to stay attractively priced, competing directly with the substitutions from naphtha crackers.

The uncertainty in the upstream crude oil market as well as the persistently bearish sentiment in the downstream end-user sectors poised uncertainties in the start-ups of the new MTO/ coal-to-methanol

(CTO) projects. Most players expect delays in those start-ups if the current economic climate persists, especially for stand-alone, merchant MTO plants.

“With benchmark coal prices hovering at relatively low levels, the stand-alone merchant MTO producers have to remain competitive compared with their back-integrated counterparts,” one producer said.



"[The market] has not even taking into consideration of the additional competition in the propylene market coming from the new propane dehydrogenation (PDH) capacities in northeast Asia," he added.

The additional propylene capacities from the PDH units include three new units in China and one in South Korea, which will add competition in the propylene market "2016 seems to be a long winter for methanol market," a major southeast

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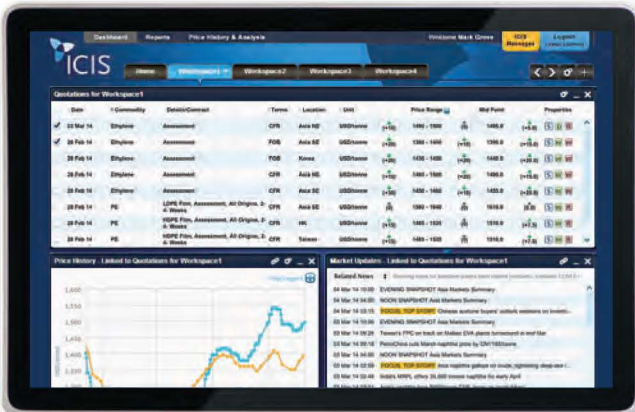
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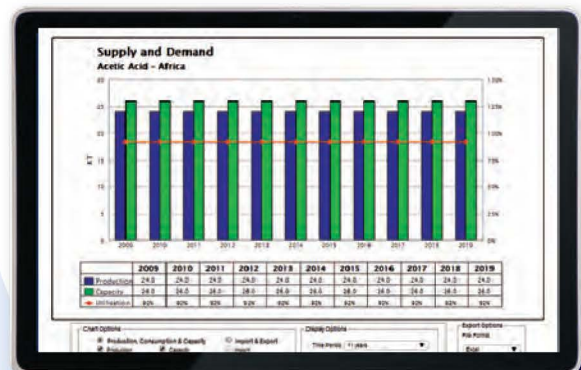


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### ASIA MDI FINDS NEAR-TERM SUPPORT; OVERSUPPLY REMAINS

By: Matthew Chong | 22 December 2015

SINGAPORE (ICIS)--Spot prices of methyl di-p-phenylene isocyanate (MDI), particularly of polymeric methyl di-p-phenylene isocyanate (PMDI), in Asia are likely to find support from reduced supply in January as major plants in the key China market are undergoing turnaround, industry sources said.

Chinese producer Wanhua Chemical, which is the world's biggest MDI producer, is currently conducting maintenance at its Ningbo plants with a combined capacity of 1.2m tonnes/year.

Its 400,000 tonne/year and 800,000 tonne/year MDI units were taken off line in the first-half of December and are expected to resume production around mid-January.

Regional MDI prices may firm up as restocking activities in China are expected to begin before the plants can restart and achieve on-spec production, making supply temporarily short, market sources said.

Demand for MDI typically picks up ahead of the week-long Lunar New Year holiday, which falls on 7-13 February 2016.

By the second half of February, however, buying appetite for MDI is likely to dwindle given continued weakness in the Chinese economy.

PMDI, when combined with rigid polyols, is used in refrigerators, as well as insulation in the construction sector.

Peak demand for the material is during March/April, supported by a resurgence in construction activities, but market players

are worried that actual consumption in 2016 will not be as strong as in the previous years.

China is long in MDI supply – a condition that was exacerbated by the expansion of Wanhua Chemical's Ningbo capacity to 1.2m tonne/year in late 2013 from 900,000 tonnes/year previously, market sources said.

In Yantai, the company decided to shut a smaller 200,000 tonne/year MDI plant in end-October 2014, after the start-up of its 600,000 tonne/year unit at the site.

Wanhua Chemical's Ningbo and Yantai production sites have a combined MDI capacity of 1.8m tonnes/year, which currently accounts for 44% of Asia's total MDI nameplate capacity.

Because of the supply glut in the market that was depressing MDI prices throughout 2015, Wanhua Chemical had been running the Ningbo plants at half their capacity prior to their shutdown, market sources said.

Meanwhile, the company is running the 600,000 tonne/year unit in Yantai, Shandong province at around 50-60% of capacity, and is unlikely to ramp up production at the unit by much during the turnaround of the Ningbo plants, a company source said.

An MDI plant's output is 70-80% PMDI and 20-30% monomeric methyl di-p-phenylene isocyanate (MMDI) or pure MDI, and this ratio moves within a narrow range and is not easily adjustable, according to industry sources.

In the MMDI market, price fluctuations are expected to be relatively more contained compared with PMDI. MMDI has a shorter shelf life of three to six months compared

with PMDI's two years.

MMDI, when combined with adipic acid, butanediol (BDO) and methyl ethyl ketone (MEK), is used as a pre-polymer for applications in shoe soles, adhesives, thermoplastic polyurethane (TPU) resins, spandex and synthetic leather.

Raw materials, especially benzene, will play a part in determining the MDI price trend in the coming year. Benzene typically tracks crude prices, which have been slumping on concerns over a supply glut.

In May next year, Japan's Mitsui Chemical will permanently shut its 60,000 tonne/year MDI unit in Omuta, Fukuoka prefecture, but the closure is expected to have a limited impact on the regional market, a Japanese supplier said.

Meanwhile, possible delays in the start-up of Sadara Chemical's 400,000 tonne/year MDI facility in Saudi Arabia to 2017 from the initial schedule of end-2016 have lifted suppliers' gloomy moods to some extent.

Sadara Chemical is a joint venture between US producer Dow Chemical and state energy firm Saudi Aramco.

While producers' profit margins for PMDI had been squeezed thin for much of 2015, the situation may not deteriorate too much in the coming year if plant operating rates were kept low since no additional capacity is expected to come on stream in 2016, regional suppliers said.

BASF's new 400,000 tonne/year unit in Chongqing in southwestern China has been running at reduced rates since it started up in August 2015 due to tepid demand. Production at the plant may not be ramped up next year, market sources said.

### STABLE-TO-SOFT DEMAND EXPECTED IN ASIA BPA MARKETS

By: Melanie Wee | 22 December 2015

SINGAPORE (ICIS)--Greater import demand in Asia's bisphenol A (BPA) market is expected to be limited, amid ample supply availability from plants in China in 2016, according to most market players.

A slowdown in China's economic growth this year, coupled with the devaluation of the Chinese yuan, has constrained import demand for BPA, against a backdrop of recently added plant capacities in the key China market.

The latest plant to have begun commercial operations was China's Shandong Lihuayi Weiyuan's 120,000 tonne/year BPA unit located in Dongying, Shandong province.

Taiwan's Nan Ya Plastics earlier this year had started commercial operations at its 150,000 tonne/year BPA unit located in Ningbo, China.

Both plants are mainly dedicated towards meeting domestic BPA requirements in China.

An overall slump in upstream benzene

and energy prices has in part weighed on BPA prices in China, squeezing the product spreads during the second half of this year, market players said.

China's manufacturing purchasing managers' index (PMI) fell to 49.6 in November, edging down from 49.8 in October, according to official data. The PMI is a barometer of an economy's manufacturing activities, with a reading of 50.0 or higher indicating an expansion, while a number below that denotes a contraction.

A softening trend might continue looking ahead into 2016, in light of recent weakness in global crude oil futures and higher domestic production in China if most BPA plants were to run at full capacity, a Chinese buyer said.

On the flip side, there were market players who bore expectations of improved conditions in 2016 as there are few, if any, further plant capacity expansions, while most downstream polycarbonate plants are expected to run at full capacity. This would help sustain raw material demand for BPA and help tip the supply-demand balance scale, they said.

With spot prices in China already weak

because of the slowing economy, there could be a possibility of some upside in the coming year, a Chinese trader said.

"There should not be much change in [market] fundamentals and hopefully the spread between benzene and BPA can hold at \$350/tonne and above," a northeast Asia-based trader said.

The market outlook for 2016 "should be better as no one is making profit for BPA", pointing to the current bearish environment, a separate northeast Asia-based trader said.

The spread between both products stood at around \$296/tonne as of 4 December, down from average monthly levels at above \$350/tonne during July-September, according to ICIS data.

Spot prices of BPA on a CFR (cost & freight) China basis averaged at \$915/tonne in the same week ended 4 December, marking a 41% decline in comparison against the same period a year earlier.

Meanwhile in India, a buyer is expected to maintain its monthly consumption of BPA stable to higher in 2016, which could help absorb some surplus supply from northeast Asia, market players said.

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### ASIA BUTYL ACETATE FACES PRICE PRESSURES IN Q1

By: Eric Su | 12 January 2016

SINGAPORE (ICIS)—Asia's spot butyl acetate (butac) market may come under pressure in the first quarter, with prices likely to be influenced by trends in the upstream n-butanol (NBA), acetic acid and crude futures markets, industry sources said.

Butac prices fell to multi-year lows late in 2015 amid the volatility in crude prices and weak demand – market conditions that are largely expected to prevail early into 2016.

Chinese butac producers have cut their output in December but supply has remained long since demand has weakened, market sources said.

Spot butac prices in northeast Asia, which largely track China's exports, fell to an average of \$625/tonne CFR (cost and freight) NE Asia in end-December, shedding around 18% in the fourth quarter of 2015, according to ICIS data.

In southeast Asia, spot butac prices declined by about 16% over the same period to \$685/tonne CFR SE Asia, the data showed.

Most producers facing squeezed margins will attempt to keep prices steady early this year, but may have to succumb to downward price pressure if feedstock costs continue to fall, market players said.

Majority of butac production is used as industrial solvent in the paint and coating industry, for use in the automotive

sector, in furniture and in other synthetic materials.

Downstream manufacturing activities are being limited by the slowdown in China, which is the world's second-biggest economy and a key import market for most petrochemicals, market sources said.

Within China, the butac market outlook is uncertain ahead of the week-long Lunar New Year holiday, which will begin on 8 February.

Restocking activities may kick in after the Lunar New Year festivities in China and provide some lift to butac prices, market sources said, but some downstream buyers may decide to shut down their plants amid the bearish sentiment.

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### INDIA SOLVENTS POISED TO GROW IN 2016 ON DEMAND

By: Veena Pathare | 29 December 2015

SINGAPORE (ICIS)--India's solvents market is poised to grow in 2016 on the back of rising demand though not without its fair share of challenges, industry sources said.

Demand for isopropanol (IPA) is expected to see support from increased demand for pharmaceutical drugs that is expected to see strong growth, thanks to a burgeoning population.

"India will continue to see a growth somewhere in the range of 5-8%, boosted by the healthy demand for pharmaceuticals, paints and coatings," a source at a domestic producer said. Around 70% of IPA demand in the country comes from the pharmaceutical sector, where IPA is widely used as a solvent. Moreover, India is also a key exporter of pharmaceuticals to Europe, and growing European pharmaceutical demand is likely to lend further support to increased solvent demand in India.

IPA also finds use in the manufacture of paints and coatings, and growth in these sectors is also expected to lend support to demand for the solvent, according to industry sources.

India produces around 70-80% of its total IPA demand, and depends for the rest on imports from Asia, the US and Europe. The ability to import either deep-sea (US, Europe) or from Asia depending on the price attractiveness is expected to continue in 2016 as well.

Previously, Indian IPA prices were at a premium to those in China or southeast Asia, owing to higher freight. However, for much of 2015, import prices have trended either at par or lower than Asia, because of competitively priced deep-sea product.

This impacted buy-sell dynamics for Asian product, even as Asian sellers targeted higher netbacks for their cargoes. According to a key Indian IPA importer, this situation is expected to play out in 2016 and premiums on Asian cargoes would not always be workable.

Demand for acetone in the south Asian country is also expected to register growth, supported by increased demand for paints, coatings, printing inks and pharmaceuticals.

While India has a couple of phenol/acetone manufacturing facilities, the absence of an integrated chemical complex and the associated profitability challenges will continue to support India's demand for imports, according to a regional trader.

Some capacity additions have been planned. However, these are likely to come on stream only in 2017, supporting the dependence on Asian imports.

Deepak Nitrite's upcoming plant in Gujarat has a planned capacity of 200,000 tonnes/year of phenol and 120,000 tonnes/year of acetone, the construction of which began in the first quarter of 2015. The plant is expected to commission in 2017.

On the price front, buyers' expectations for 2016 are capped by the oil price slump and the increase in supply following new start-ups across Asia, and regard any supply constraint to persist only in the short-term.

Reduced propylene supply following a force majeure at Shell's Pulau Bukom cracker prompted phenol/acetone supply cuts at a few Asian facilities in end-2015. This added to the woes of Asian phenol/acetone manufacturers, who were mulling or had applied production cuts following squeezed margins.

Indian importers deem these factors to impact acetone prices only in the near-term, and expect supply to remain ample in 2016, in the backdrop of newly added capacities.

"A slowdown in the Chinese economy will push for Asian sellers to focus on India to move volumes, giving Indian buyers improved bargaining power," an Indian importer said.

Acetone importers in the country expect lower crude values and supply gains to push down prices for much of 2016. Solvent growth in India is not without its own challenges, according to market sources.

A lack of momentum on the macroeconomic front is likely to spill-over into weaker performance on the manufacturing front, hampering growth. The depreciation in the Indian rupee against the US dollar is also a factor that is expected to play a role in Indian demand for solvents, since a bulk of it is met through imports.

Improved technological processes could also set off some portion of demand. According to an importer, many solvent users have begun to incorporate 'solvent recovery' units into their manufacturing processes.

These units call for a large one-time capital investment. Most of the solvent used in the process is recovered and re-used, reducing the volume of fresh solvent usage.

### MIDDLE EAST SOLVENTS IMPORT FACE TOUGH CHALLENGES

By: Veena Pathare | 29 December 2016

SINGAPORE (ICIS)--Middle East solvents import market is expected to continue to face serious challenge in 2016 due to soft demand as a result of weaker spending's caused by a massive plunge in crude oil prices, market sources said.

The crude price decline that has affected the GDPs of most Middle Eastern countries has led to a slowdown in the printing and paint sectors, the main consumers of solvents in the region, according to a UAE-based trader.

Saudi Arabia incurred a budget deficit of \$98bn in 2015 as lower oil prices cut into the main source of revenue, forcing the government to announce spending cuts for 2016.

A Saudi royal decree this week said petrol prices would go up by 50 percent immediately while diesel, electricity and water prices are also expected to be raised.

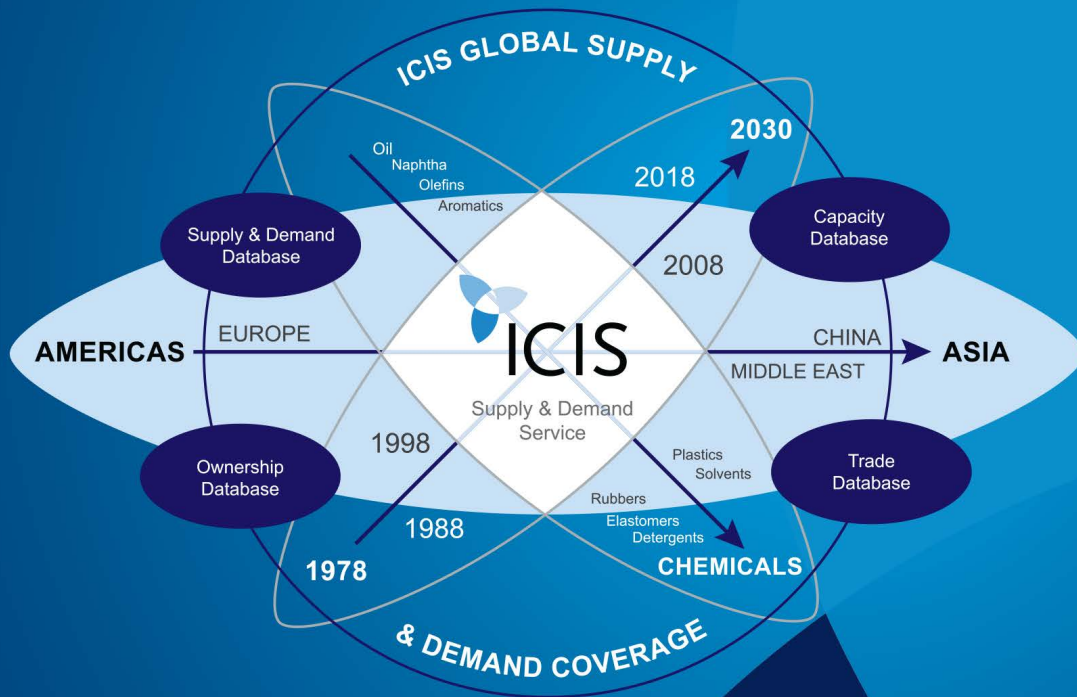
The situation is further exacerbated by the political turmoil across the Middle East. "Tighter credit lines have made it harder for regional traders and distributors to stock and sell, and back-to-back sales have been impacted by weak downstream demand," the UAE-based trader said.



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Currency issues in Africa, a key market for the export of finished product from UAE is also cited as a factor affecting solvent demand.

Some solvents also involve a more stringent protocol to be followed in case of imports, which leads users to shy away from importing, according to industry sources.

Acetone, in particular, is a tightly regulated product in UAE and the import involves additional paperwork such as licences to be obtained from the Ministry of Health (MOH), according to market sources.

This, coupled with ample supply of regional product that already enjoys MOH approvals in the backdrop of softer

demand is expect to persist in 2016, impacting the demand for imports into the region.

A similar situation exists for the import of ethyl acetate (etac) in the region. Factors such as long voyage times and competitive domestic product are likely to continue limiting the arbitrage for Asian bulk imports in the near-term, according to market sources.

The Middle East has always been a small market for pure grade isopropanol (IPA) owing to the absence of pharmaceutical manufacturing in the region.

Paints and coatings producers have traditionally purchased “technical-grade” IPA, a blend of IPA and ethanol owing to

its cost-competitiveness.

According to market players, pure IPA demand in the region will continue to remain capped by the popularity of the technical grade.

Furthermore, the presence of a major global producer in the UAE retail markets and its competitively-priced product is also likely to deter importers from seeking drummed Asian cargoes.

According to a UAE-based importer, drumming cost in Jebel Ali is only around \$100-120/tonne as compared with around \$200/tonne in Asia. This enabled regional traders to buy from the producer, drum and sell the product at a lower price.



### ASIA LIKELY TO SEE LOWER PHENOL OUTPUT

By: Trisha Huang | 4 January 2016

MELBOURNE (ICIS)--The average phenol/acetone plant operating rate in Asia is likely to decrease further in 2016 as the region's capacity expansion outpaces demand growth. Asia, which already has about half the world's phenol capacity, will see further capacity expansion in 2016. The anticipated commissioning of two new plants will boost the region's phenol capacity by a further 9.5% to 6.37 million tonnes by mid-2016. However, reduced year-end inflow of deep-sea material, an extended shutdown at Shell's cracker in Singapore, alongside a heavy turnaround schedule in the first half of 2016, are potentially supportive to Asian phenol prices in the early part of 2016.

Thailand's PTT Phenol is expected to bring onstream a new 250,000 tonne/year phenol plant in the first quarter of 2016. In the second quarter, South Korean producer Kumho P&B will start up a new 300,000 tonne/year phenol plant.

The two plants will boost supply at a time when demand is faltering as the pace of economic expansion slows across the region. Further afield, PetroRabigh is scheduled to start up its new 275,000 tonne/year phenol plant in Rabigh, Saudi Arabia, in the second half of 2016.

Asian phenol makers are already struggling with weak margins amid excess capacity. The commissioning of three new worldscale phenol plants in China in 2015 and the consequent margin erosion prompted China-based phenol producers to slash their average output to 50-60% capacity by the fourth quarter of 2015, according to estimates by market participants. The surge in domestic product availability in 2015 has maintained the downward bias in China's phenol imports, in a continuation of the trend that began in 2012. The country imported 154,874 tonnes of phenol between January and November 2015, down 21% from the same 11-month period in 2014, China's Customs data showed.

China's diminishing phenol import demand, along with weak conditions

crippling the key downstream bisphenol A (BPA) sector, has prompted several Asian phenol makers to scale back their output.

Phenol manufacturers including Taiwan's Chang Chun Plastics, Taiwan Prosperity Chemical Corp (TPCC), Mitsui Phenols Singapore and South Korea's LG Chem have implemented varying degrees of output cuts to counter the squeeze on their margins. Producer's margin erosion in 2015 is evidenced by the narrower price spread between phenol and raw material benzene, a gauge used by industry participants to measure the relative strength of phenol versus benzene.

Phenol's premium to benzene narrowed to a yearly average of \$197/tonne in 2015, below the breakeven level of \$200/tonne, according to data compiled by ICIS. The price spread is likely to be at \$150-200/tonne in 2016, according to estimates by market participants. In comparison, the phenol/benzene spread averaged at \$221/tonne in 2014, ICIS data showed. Limited downstream expansion in 2016 is expected to exacerbate the supply overhang in Asia, giving producers few options other than to deepen their output cuts. The only notable downstream capacity increase to take place in 2016 is a BPA capacity expansion planned by Covestro. The producer plans to boost the BPA capacity at its Shanghai plant by 110,000 tonnes/year to 330,000 tonnes/year in 2016. The average phenol/acetone plant operating rate in Asia is likely to decline to roughly 83% capacity in 2016 from around 87% in 2015, a trader estimated.

As one Asian producer put it, lower phenol plant operating rate will be the "new normal". "The longer term trend is that China-based producers will need to run their plants at reduced rates to maintain the equilibrium in supply and demand and it may take another two to three years before supply and demand can reach a balance," the Asian producer added.

Producers are likely to be more sensible going forward, said a Chinese end-user, referring to a potentially prolonged period of decreased phenol output in the country.

Despite the grim outlook, the large number of phenol plant turnarounds scheduled to take place in the first half of 2016, along

with the possibility that Shell's cracker in Singapore may stay shut for several more months, is expected to lend support to the underlying supply/demand fundamentals for phenol in Asia.

Mitsui Phenols Singapore and Taiwan's Chang Chun Plastics have plans to shut down their plants in February for month-long overhauls. Both plants are already being operated at below capacity.

In South Korea, Kumho P&B will take both of its existing phenol units off line in March for around 40 days of maintenance. In Japan, Mitsubishi Chemical has scheduled a two-month shutdown at its phenol plant in the second quarter, as part of a major overhaul at its Kashima complex. In Taiwan, TPCC's plant is in the midst of a turnaround that began on 20 December.

Shell on 1 December declared a force majeure on the supply of base chemicals from its Pulau Bukom cracker, which can produce 960,000 tonnes/year of ethylene and 450,000 tonnes/year of propylene.

Although market sources have said that the cracker may stay shut for up to six months, Shell has not commented on the duration of maintenance at the complex.

Mitsui Phenols Singapore has been running its phenol plant at 60% capacity since early December because of tighter raw material propylene supply. Separately, operations at a Singapore-based cumene plant are also heard to have been affected, according to market sources.

On top of curtailed regional phenol output stemming from a combination of production cutbacks, routine maintenance and feedstock shortages, decreased year-end inflow of deep-sea phenol, a result of industry consolidation in the US in 2015, is likely to lend further support to the supply/demand fundamentals in the first quarter of 2016.

In the US, Axiall Corporation's phenol plant in Plaquemine, Louisiana was closed in November 2015. Separately, Altivia Petrochemicals is understood to be running only one of the two units at the Haverhill, Ohio phenol plant formerly owned by Haverhill Chemicals. "Phenol supply in Asia is expected to be tight in the first quarter," said the trader.

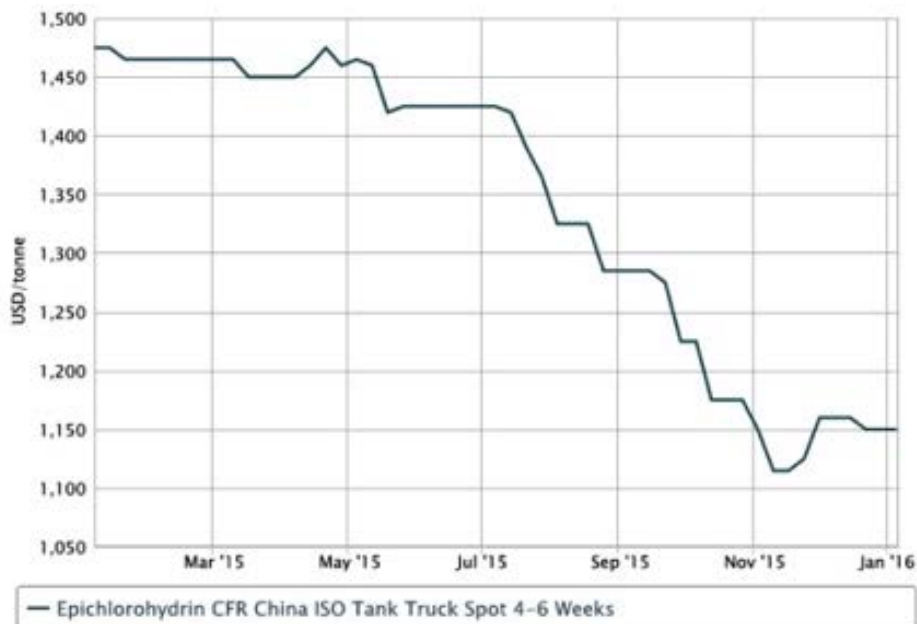
### ASIA ECH OUTLOOK CLOUDY ON CHINA DOMESTIC VOLATILITY

By: Joson Ng | 7 January 2016

SINGAPORE (ICIS)—Asia's epichlorohydrin (ECH) outlook is uncertain in the near term as domestic China price volatility weighs on the sentiment, though steady decline of last year may be halted in the first quarter of 2016, sources said. The year 2015 was largely a bearish one that saw prices slump to levels not seen since 2009 for both the Chinese import and domestic markets, although prices in these markets rebounded in the final few weeks of the year.

The import market was subdued for most part of the year as the buy-sell gap was persistently wide, with neither the buyer nor the seller willing to bridge the gap until the last few weeks of the year when the domestic prices were higher and closer to the import prices. For most of the second half of 2015, the domestic prices were lower, hit by weak markets in both the chlorine and propylene sectors.

Consequently, propylene-based ECH producers in China were able to produce at a lower cost compared to their glycerine-based counterparts and hence were able to sell off their cargoes at a price that was not feasible for the glycerine-based producers. This resulted in lower prices in the Chinese domestic market and an inactive import market, as selling into China did not represent value for most foreign producers. For 2016, some market players were on the fence as outlook for ECH market remains cloudy but many think prices will be largely stable. "The year 2016 will be the same, no change," said a separate producer. Much will depend on the performance of the downstream liquid epoxy resin (LER) sector, as opposed to the supply situation in ECH, the producer added. LER producers may have better margins in 2016 due to lower feedstock prices, the producer said. The LER sector will heavily influence ECH's Chinese domestic market, which was on an uptrend in the final few weeks of the year before a correction that saw gains wiped out. The uptrend in late 2015 was buoyed by firmer chlorine and propylene markets in China, after domestic ECH hit a year-low of yuan (CNY) 7,450/tonne DEL (delivered) east China on average in late October. Even



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as market players expect stability, the ECH market may be temporarily boosted, particularly in China, by pre-lunar New Year restocking activities in the LER market. A tighter ECH supply may also trigger an upswing.

"There is a chance for a rebound in the first quarter of 2016," said a northeast Asian producer outside of China. "Though the liquid epoxy resin [LER] demand is normal, the supply of ECH could be tight [in China]," it added. Supply could be tightened as a result of lower run rates at glycerine-based ECH plants in China. These plants were not able to run at full capacity for a significant period in the end of 2015 due to poor margins brought about by the weak spot market. Most glycerine-based ECH producers require a sustained period in which the market price is above the CNY8,500/tonne DEL east China level before they can run their units fully, according to the producers.

Even so, some producers may prefer to focus on prices rather than sales volume. The CFR (cost & freight) CMP (China Main Port) market is expected to track the domestic market to a certain extent, even though trades are expected to be limited as Chinese buyers were generally keen to purchase locally and there are only a few buyers left in the import market. Import figures into China were under 3,000 tonnes in the month of September.

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## GLYCERINE



### ASIA GLYCERINE OUTLOOK HINGES ON BIODIESEL POLICIES

By: Jackie Wong

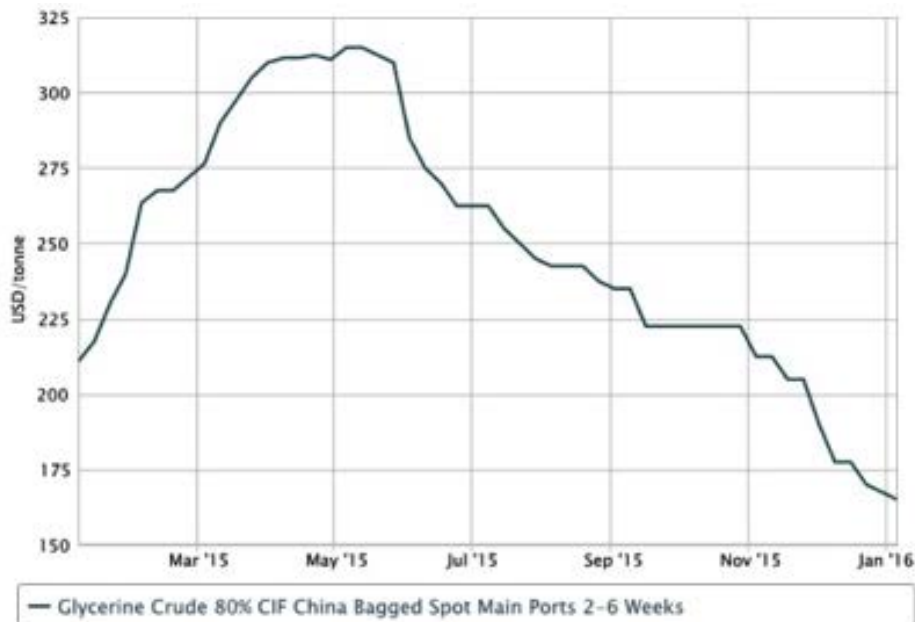
SINGAPORE (ICIS)—The future of Asia's glycerine market will largely depend on the implementation of the biodiesel policies in the region as countries try to enhance blending in gasoline for environmental reasons, market sources said.

The Indonesian government confirmed late last year that the country will be moving to B20 in 2016, making it mandatory for vehicles to use fuels with a 20% biodiesel and 80% petroleum diesel blend.

In addition, Malaysia and Thailand have also been trying to increase their biodiesel blending, although market participants in Thailand said that it is unlikely that the country will move to B10 in the near future owing to strong resistance from the automotive industry due to concerns over potential engine performance and damage.

Thailand is the biggest automotive producer in southeast Asia and the ninth biggest in the world.

With glycerine being a byproduct of biodiesel, these biodiesel policies are



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expected to increase glycerine supply and assert further downward pressure on glycerine prices which have been on a decline since May 2015.

Late last year, prices of refined glycerine stabilised somewhat on more balanced

supply with the biodiesel sector in its lull winter season and oleochemical producers running at reduced capacity

due to slow oleochemical product sale.

Glycerine is also a byproduct of oleochemicals such as fatty acids and fatty alcohols.

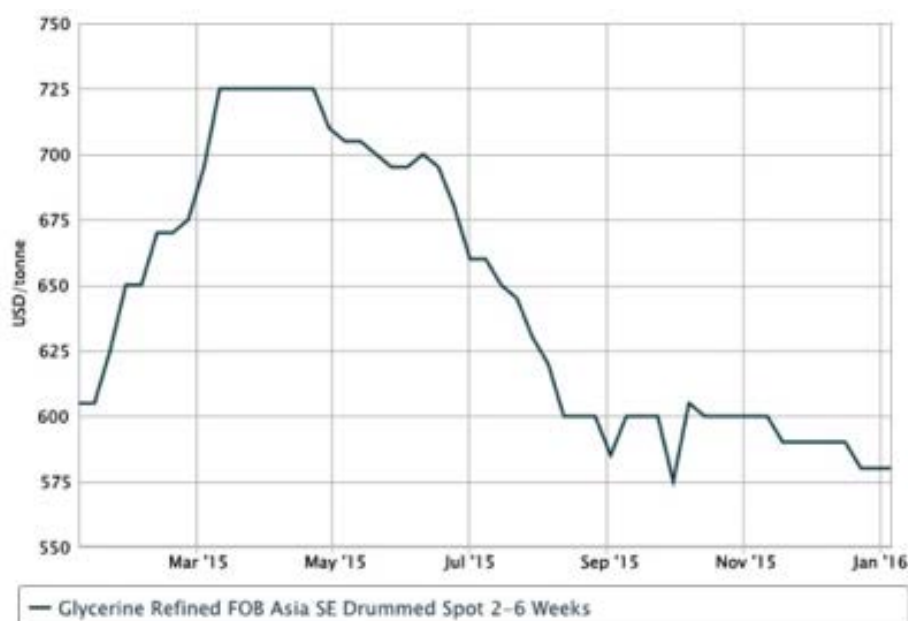
Demand for refined glycerine has been weak for the past few months and is expected to remain so going forward as a result of the weak global economic outlook, particularly in China which saw its manufacturing sector contract for 10 consecutive months.

Downstream, glycerine-based epichlorohydrin (ECH) producers continue to face strong competition from their propylene-based counterparts due to lower raw material costs. Propylene prices fell in 2015 due to oversupply.

In the absence of strong demand, some market participants believe that any significant increase in glycerine production will bring the market towards an oversupply situation.

As for crude glycerine, prices of cargoes going to China main ports dropped sharply in December 2015, going below \$180/tonne CIF (cost, insurance & freight) CMP (China main port), which market participants had previously thought to be the price floor.

Some Chinese traders said that as a



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result, some crude glycerine suppliers from southeast Asia have turned to other markets, such as North America and Europe where they believe would provide better margin.

There were also talks of some Chinese refineries restarting their plants to refine crude glycerine to refined glycerine due to the availability of low-priced materials.

This will in turn affect the supply situation of refined glycerine.

Going forward, market participants believe that glycerine supply will trend longer, especially if the biodiesel policies in southeast Asia are fully implemented.

On the other hand, demand is expected to remain lacklustre due to macro-economic factors in particular that of China.

Glycerine prices will be determined largely by how the supply-demand situation pan out.

After dropping from a peak of \$965/tonne FOB (free on board) SE Asia in September 2013, refined glycerine prices in Asia dropped mostly throughout 2014, reaching a low of \$590/tonne FOB SE Asia in December.

From January to March 2015, prices went on an upswing, going as high as \$725/tonne FOB SE Asia before going on a steady decline to end the year at \$580/tonne FOB SE Asia.

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### ASIA ACRYLIC ACID, ACRYLATES CAPACITY OVERHANG CONTINUES

By: Paul Lim | 23 December 2015

SINGAPORE (ICIS)—Asia's acrylic acid and acrylate ester production capacity overhang is likely to continue in 2016 especially when no major demand growth is expected, market sources said. Production startups in Asia caused market supply to lengthen drastically in 2015. South Korea's LG Chem started up a 350,000 tonne/year acrylic acid line in Yeosu. China's Yantai Wanhua started up a 300,000 tonne/year acrylic unit in September. Yantai Wanhua is understood to be running only one of three production lines. Producers in China have been running at an overall average operating rate of 50% in 2015, and are likely to maintain these production rates well into 2016.

Producers in other parts of Asia can run at higher rates, depending on off take volumes and sales volumes to India. This massive production capacity in Asia is expected to ensure the easy availability of cargoes and will likely dampen price climbs in 2016, market sources said.

Producers in Asia Pacific said they will continue running at reduced operating rates in 2016, as margins are not expected to improve by much. While there are no new startups expected in 2016 in either Asia Pacific or the Middle East, the massive overproduction capacity is already making its impact on the market.

Southeast Asian prices for glacial acrylic acid (GAA) and acrylate esters have seen the steepest falls. GAA import prices have fallen close to 30.9% on CIF (cost, insurance & freight) SE (southeast) Asia basis from June to date, and 38% year on year while butyl acrylate (BA) fell by 30.8% from June to date, and 40% year on year. Import prices in China saw less drastic falls due to the limited liquidity of cargoes entering the country. This is due to the ample production capacity and supply in the domestic market. China import prices of GAA have fallen by 14.6% from June to date on CIF basis while year on year it has fallen by 25.5%. Butyl acrylate declined by 23.1% year on year and 14.9% from June to

date. On the demand front, consumption rates from end-users are not expected to increase by much, with most end-users looking to secure the same volumes of acrylic acid and acrylate ester cargoes. Superabsorbent polymers (SAP) are expected to continue be the main growth sector for acrylic acid. Acrylic acid is used as the feedstock for producing SAP, which is in turn used to make healthcare and hygiene products such as diapers.

It replaces traditional absorbent materials such as cotton or cloth. Demand for the other acrylate esters such as butyl-acrylate, ethyl-acrylate, methyl-acrylate and 2-ethyl hexyl acrylate are expected to remain flat from traditional downstream users in the paints and coatings, adhesives and packaging industries.

In 2015, growth peaks of demand for acrylates for use in end-products had mellowed down in line with the poorer global macroeconomic health. This pattern is expected to be repeated in 2016, market participants said; typical peak periods which had been seen previously, such as in the fourth quarter of the year before the year-end holiday seasons of Christmas and New Year, are not expected to be as pronounced in 2016 compared to previous years. The demand for acrylates typically increases when end-users see demand for packaging materials, or for paints and coatings for gifts for the holidays.

Spring-time in China also sees some increase in demand for paints and coatings as the Chinese spruce up their homes for the Lunar New Year. Market sources said end-users continued to shy away from term contracts, preferring to purchase spot cargoes in the merchant market, on account of the low crude oil price environment and shaky macroeconomics still being felt in the world financial markets. These factors have producers looking to adjust run rates lower in 2016, especially for esters which have seen drastic prices drops through the second half of 2015. Chinese exporters are also expected to continue looking for sales outlets into southeast Asia and other parts of the world, with market participants expecting the volumes of China-origin acrylic acid and acrylate ester exports to gradually increase in 2016 if end-users are satisfied that they meet quality standards.



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### RISING SUPPLY MAY CAP ASIA ACN UPTREND IN Q1

By: Judith Wong | 28 December 2015

SINGAPORE (ICIS)—New supply from China will likely limit the uptrend in Asia's acrylonitrile (ACN) spot prices in the first quarter of 2016, market sources said.

Prices have been rising since early November after stagnating in the previous month as supply tightened in the key China market.

ACN prices have risen 8% since early November to \$980-1,180/tonne CFR (cost and freight) NE (northeast) Asia on 11 December, according to ICIS data.

The recent price uptrend was attributed to the tight supply in China after a major producer Major producer Shanghai SECCO had a few days of power outage at its two plants in China. The plants have a combined capacity of 520,000 tonnes/year.

Other Asian ACN producers have been operating their plants at reduced rates for

most of the year due to weak demand, thus, limiting the availability of spot materials in the market were limited, industry sources said.

Producers raised the offers to cope with active buying enquires for the prompt arrival cargoes, which pushed up ACN prices sharply.

However, the uptrend may not sustain in coming months as a new ACN plant in China will start up at the end of December or January.

China Jiangsu Sailboat Petrochemical is expected to start up its 260,000 tonne/year ACN plant at the end of December or later, a company source said.

"Once the Sailboat starts up the new plant, ACN prices will lose the uptrend momentum as buying interest for import cargoes will decrease amid rising domestic supply," a local end-user in China said.

China's ACN capacity will reach to over 2m tonnes/year in 2016 after Jiangsu

Sailboat starts up its new plant. With increased domestic availability, the country's ACN imports are expected to continue falling next year, market sources said.

However, some market participants said the upcoming plant maintenance from Taiwan Formosa Plastics Corp (FPC) will likely lend some support to the market sentiment in January.

Taiwan's FPC plans to shut its 280,000 tonne/year ACN) plant in Mailiao for scheduled maintenance in January for three to four weeks, a company source said.

"It is very difficult to forecast the ACN prices in Q1. If Sailboat could not start up on schedule, the supply will likely tighten again after FPC shuts down their plant. The market may not soften instead," a trader said.

In the long run, the ACN prices will be under pressure due to the ample domestic supply in China, sources said.

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### ASIA'S ACETIC ACID PRICING DEPENDS ON CHINA SUPPLY

By: Helen Lee | 6 January 2016

SINGAPORE (ICIS)—Asia's acetic acid spot prices trend in 2016 will depend mainly on key China market where oversupply had caused the material to hit historical lows last year, market sources said.

China exported 361,554 tonnes of acetic acid in the first eleven months of 2015, more than double the 163,989 tonnes exported during the same period a year ago, according to China customs data.

Offers for Chinese origin material fell to a historical low level of around the mid-\$200s/tonne FOB (free on board) China by late November, as a result of limited outlets for sale after suppliers offloaded cargoes to India in the third quarter.

Softening crude futures pricing in the latter half of 2015 further affected buyers' sentiment along the entire petrochemical value chain as derivative product prices came under pressure.

The operating rates at China's downstream plants were largely capped at reduced rates

in the fourth quarter amid a slowdown in the country's economic expansion.

Purified terephthalic acid (PTA) plants in China were being operated at 60-65% in the fourth quarter.

The average operating rates for vinyl acetate monomer (VAM) plants hovered at below 60% for the most part of the fourth quarter while the overall ethyl acetate (etac) output at China-based plants was at about 40% capacity, according to estimates by ICIS China.

The rout in acetic acid pricing prompted some acetic acid producers outside China to cut their plant operating rates to below 70% and around 85% in November.

A southeast Asia-based acetic acid producer had also brought forward the maintenance shutdown schedule at its plant to the latter half of November, from January 2016, according to a source close to the producer.

In China, BP YPC Acetyls Company (Nanjing) Limited (BYACO)'s 500,000 tonne/year acetic acid plant in Nanjing, Jiangsu province, was shut from 29 September for maintenance but this was prolonged to late

December in light of the downbeat market conditions.

"Acetic acid prices may remain at around CNY2,000/tonne in the first half of 2016 based on the low methanol futures prices as well as low crude prices," a China-based supplier said.

Market players agreed that acetic acid prices were likely to remain depressed if most producers in China operated their plants normally.

"Some producers have bought up excess acetic acid volumes from the merchant market in November and December but prices were still down so producers may have to cut their plant operating rates in January because with the exception of the PTA sector, all other derivatives are weak with low plant utilisation rates and there's no growth in demand or new capacities," a trader said.

On a brighter note, a bout of acetic acid plant production issues in China during the week ended 25 December while news that a Shanghai-based plant will be shut for turnaround in January lent support to historical low

Company	Capacity (tonnes/year)	Location	Shutdown schedule
Shanghai Wujing	500,000 + 200,000	Wujing, Shanghai, China	To shut larger unit for 2 weeks in first half of Jan 2016.
Formosa BP Chemicals	350,000	Mailiao, Taiwan	2-3 weeks in Mar 2016*
Shanghai Huayi Group	500,000	Wuwei, Anhui, China	May-July 2016 (TBC)
Jiangsu Sopo	600,000* & 400,000	Zhenjiang, Jiangsu, China	Jun-Aug 2016 (TBC)
Celanese	1,200,000	Nanjing, China	H2 2016*
Celanese	600,000	Jurong Island, Singapore	H2 2016*
Fanavar	150,000	Bandar Imam Khomeini, Iran	To be finalised end Mar 2016
Samsung BP	600,000	Ulsan, South Korea	Late Q1-early Q2 2017
Chang Chun Petrochemical	600,000	Mailiao, Taiwan	Mar/Apr 2017



export prices in China, although a couple of the plant outages were short-lived.

Other plants that experienced unplanned outages in late December include Shanghai Huayi Group's 500,000 tonne/year acetic acid plant in Wuwei, Anhui province and Yankuang Cathay Coal Chemicals' 450,000 tonne/year plant in Tengzhou, Shandong province.

Meanwhile, Shanghai Wujing is planning to shut its 500,000 tonne/year acetic acid plant in Wujing, Shanghai, for maintenance in the first half of January for two weeks.

Suppliers of Chinese material subsequently raised offers by around \$10/tonne in line with the firmer domestic

market during the week ended 25 December but deals were scarce at that time owing to the lingering wide buy-sell spread.

There was however, no hurry to offload cargoes due to the ease in inventory pressure, they added.

Outside China, producers were mulling a \$20-30/tonne hike in prices for February shipments, in light of the curtailed supply in China. However, it remains to be seen if this can materialize.

"We have no idea about the February market but prices should be firming in line with China," a producer said, adding that a \$20-30 hike may be possible for February mainly because of tightening supply.

"The February outlook still depends on China but we feel producers in China have high inventories and hence they may reduce their plant operating rates," he added.

Supply in the first half of January should be tight as Jiangsu Sopo's plant is shut but as the Lunar New Year holidays are coming, producers are still keen to offload cargoes, another producer said.

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## MIDEAST TDI/PMDI BEARISH ON OVERSUPPLY

By: Fahima Khail | 5 January 2015

SINGAPORE (ICIS)--The toluene di-isocyanate (TDI) and polymeric methyl di-p-phenylene isocyanate (PMDI) outlook in the Middle East for 2016 is expected to be bearish because of oversupply resulting from plant expansions and new plants coming on line.

Flexible polyols and TDI are widely used in the furniture, bedding, coatings and automotive sectors. Polymeric MDI (PMDI) is used to form rigid or rebonded foam in system houses and for construction applications such as insulation and sandwich panels.

At the end of 2015 BASF, one of the major PU suppliers, started operations at a new single-train 300,000 tonnes/year TDI complex at its site in Ludwigshafen, Germany.

The project included the update and expansion of production facilities for TDI precursors.

It also included investments in the infrastructure that supplies steam, electricity and water.

According some market players, BASF is expected to increase its production rate to 70% by mid-2016, which will make competition amongst sellers in the Middle East stiffer than it already is.

Polyurethane (PU) market players in Europe and Asia are also paying very close attention to the progress being made with Sadara Chemical's production complex in Saudi Arabia. The company is a joint venture between Saudi Aramco and Dow Chemical.

Considered a game-changer, construction at the new petrochemicals complex is expected to be completed in early 2016, according to market sources.

In December 2015, Sadara Chemical said it has started up a new linear low-density polyethylene (LLDPE) plant - the Middle East's "first" solution PE facility - at Sadara's \$20 billion complex in Jubail, Saudi Arabia.

The plant, based on Dow technology, is the first of the 26 world-scale manufacturing plants being built at the complex to come on stream.

Commissioning and start-up activities are in progress for the other units. When complete, the complex will produce over 3 million tonnes/year of petrochemicals and plastics.

Sadara's PU portfolio, including methyl di-p-phenylene isocyanate (MDI), toluene di-isocyanate (TDI) and polyether polyols, is expected to launch in the final phase. According to a source close to the company, PU production is expected to start in the middle of 2016.

Sadara is expecting to produce 400,000 tonnes/year of MDI and polyether polyols and 200,000 tonnes/year of TDI.

Market players supplying PU products to the Middle East said they expect to see PU products sold by Sadara before the end of 2016, as pre-marketing had already begun.

However, after the start-up of its LLDPE plant, some market players said they were expecting to see commercial production of isocyanates from the first quarter of 2017.

Regardless of the timing, many market players agree that the additional PU supply by Sadara Chemical will add further pressure on prices in the Middle East.

Currently the Middle East, largely depends on imports from Asia and Europe.

The Middle East and Africa (MENA) region has been the main target for Asian and European suppliers' expansions, because of its better growth potential, proximity to Europe, but also its own lack of PU manufacturing.

Suppliers also divert cargoes to the region, when demand in their own markets is low or the Middle East yields better netbacks because of currency fluctuations.

Consequently the supply of TDI and PMDI in the Middle East has been chronically long, putting downward pressure on import prices.

In December 2014 then Bayer MaterialScience (now Covestro) started operations of its new 300,000 tonne/year TDI facility in Dormagen, Germany.

Following the start-up of Wanhua Chemical's massive 1.2m tonne/year MDI unit in Ningbo, China, in late-2014, the long supply situation has been further aggravated in China as well as in the Middle East market.

With the subsequent closure of Wanhua's other 200,000 tonne/year MDI unit in Yantai, the net addition of 1m tonne/year represents a significant increase of 30% in Asian MDI nameplate capacity.

In October 2014 Saudi Arabian petrochemical giant SABIC announced that the producer and Shell had decided not to pursue their plan to jointly produce styrene monomer (SM), propylene oxide (PO) and polyols in Saudi Arabia after nearly two years of studying the project.

"SABIC announces that they are not going to pursue this investment further because the studies result were not encouraging, but asserts that their relations will continue to develop through the exploration of any other expansion opportunities," the company had said in a statement filed to the Saudi Stock Exchange or Tadawul.

SABIC and the Anglo-Dutch energy firm Shell had agreed on 11 November 2012 to study the project before making a final investment decision.

Some market sources said that "it [was] absolutely [the] right decision" and strategically a clever move at the same time.

Going ahead with the project would have meant a much stiffer competition and more pressure on the already well supplied markets, players added.

Nevertheless new projects have started up in Asia.

New MDI expansions include BASF's 400,000 tonne/year facility situated in Chongqing, southwest China.

The start-up of the unit, which had already been delayed a few times in 2015, finally took place at the end of August 2015,

according to market sources.

Kumho Mitsui Chemicals (KMCI) is planning to expand its MDI capacity by 100,000 tonne/year from its existing 200,000 tonne/year unit in Yeosu, South Korea.

The additional capacity is scheduled to begin commercial production at the end of 2017.

With Sadara soon entering the PU arena in the Middle East, market players fear that the region will be oversupplied, leading to further price declines and potential closures.

A producer noted; “the market will become more and more difficult for PU suppliers, and some of them might not be able to survive”.

A northeast Asian market player even expressed concerns over the possibility of a reversal of trade flows, with Saudi polyols moving the other way into other

parts of Asia.

Conflicts and political instability in the Middle East have been slowing economic growth and decreasing demand in the region.

One ray of hope remains the Iranian market, which currently is closed to some suppliers, but where sellers expect the greatest growth potential.

One supplier said it was expecting growth of 10% for PMDI and polyether polyols in 2016.

Excluding Iran, market players expect an average growth of 5% for PU products in the Middle East region.

However, trade limitations remain for the time being because of the economic sanctions that have been imposed on the country.

In July 2015 six world powers agreed to lift sanctions in return for Iran accepting long-

term restrictions on a nuclear programme that the West suspected was aimed at creating a nuclear bomb.

Tehran has always denied seeking nuclear arms.

Industry sources are closely watching the outcome of talks and market players expect payment limitations to be lifted in the first quarter of 2016.

Despite concerns of product oversupply and stiff competition the MENA region is expected to remain one of the main targets for European and Asian producers, mainly because of its proximity to Europe and also because of currently weaker currencies.

Stagnant demand and slow growth in Europe and Asia is expected to leave additional volumes to be exported to the Middle East.

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### STABLE-TO-SOFT DEMAND EXPECTED IN ASIA MMA MARKETS

By: 22 December 2015 | Melanie Wee

SINGAPORE (ICIS)—Import demand in Asia's methyl methacrylate (MMA) market may remain soft going into 2016, as unfavourable conditions hamper major global economies, producers and market players said.

A slump in global energy prices notably in the second half of 2015 has generated downward pressure on spot prices of MMA, a feedstock used in the production of downstream polymers that include polymethyl methacrylate (PMMA).

The overall downward trend was also evident in prices of related products in the chain of engineering plastics in Asia Pacific such as polycarbonate and bisphenol A.

Consumption of MMA has been stable at best in the key southeast Asia market, while China's slowing economy this year has weighed on domestic prices in the region and in part influenced the bearish sentiment in Asia as a whole.

Market direction is fraught with uncertainty and to some extent, would depend on where spot MMA prices in China are heading, a southeast Asia-based producer said.

"For cast sheet manufacturers, there are a lot of 'ifs' in this market," a separate southeast Asia-based producer said.

"Demand in December and January [2016] will likely be lower ... maybe [surplus MMA] cargoes can be exported to other outlets in Europe," the same producer added.

Meanwhile, China's manufacturing purchasing managers' index (PMI) fell to 49.6 in November, edging down from 49.8 in October, according to official data. The PMI is a barometer of an economy's manufacturing activities, with a reading of 50 or higher indicating an expansion, while a number below denotes a contraction.

MMA is used as a feedstock in the production of acrylic sheet including PMMA, a transparent and high-resistance type of engineering plastic.

Further exacerbating the bearish outlook, expanding plant capacities in China as well as in the Middle East are also expected to free up MMA production and add to spot cargo availability going forward.

The joint venture by Japan's Mitsubishi Rayon Co and SABIC is in the midst of constructing a new 250,000 tonne/year MMA plant and a 40,000 tonnes/year PMMA plant in Saudi Arabia, expected to come on stream in 2017, according to market players.

China's Jiangsu Sailboat Petrochemical Co's MMA plant located in Jiangsu province with a capacity of 100,000 tonnes/year is expected to begin commercial operations by the end of 2015 or possibly in the first quarter of next year, market players said.

The weakening of local currencies in the second-half of this year, such as the Malaysian ringgit and the Indonesian rupiah, has in part dampened import buying appetite of MMA and downstream PMMA, market sources observed.

As of 4 December 2015, MMA spot prices on a CFR (cost & freight) southeast Asia basis for cargoes of 20-300 tonnes stood at an average mid-point of \$1,425/tonne, down 37% compared with the same period in the previous year when prices averaged at \$2,275/tonne CFR southeast Asia.

It is unclear whether spot southeast Asia MMA prices have reached their bottom, according to several sources.

In a similar vein, prices of PMMA are likely to take their cue from MMA, being closely related products and with a majority of MMA producers also manufacturers of downstream PMMA, market sources said.

With the near-term outlook on prices uncertain, regional importers are likely to procure spot material on a need-to basis, market sources said.

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### ASIA'S NAPHTHA BUOYANT ON LIGHTER CRACKER TURNAROUND

By: Felicia Loo | 21 December 2015

SINGAPORE (ICIS)—Asia naphtha prices are expected to draw support from buoyant demand owing to a lighter cracker turnaround schedule as well as from a strong gasoline market amidst a stable pool of deep-sea supply, traders said.

Slightly over 1m tonnes of ethylene production will be lost in 2016 as a result of cracker turnarounds in Asia, with the shutdowns concentrated mainly in northeast Asia, according to ICIS data.

This is around half the maintenance-related output losses of 2.17m tonnes in 2015.

“The margins are supportive. Gasoline is supportive and US demand is healthy. It is driving up the market,” said one trader based in Singapore.

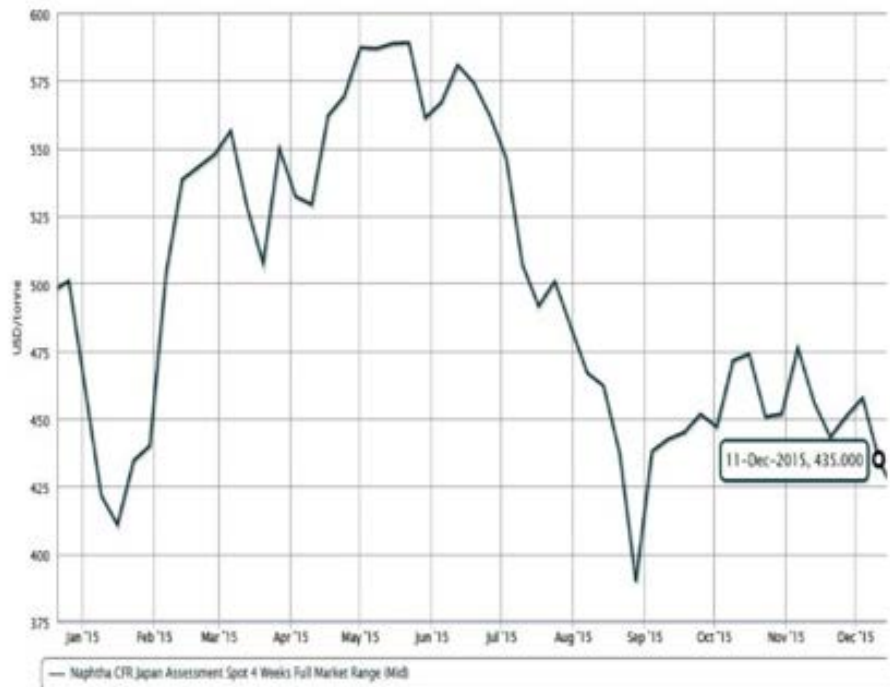
The inter-month naphtha between the first half of February contract and the first half of March contract was assessed at a backwardation of \$4.50/tonne on 18 December, while the inter-month spread between the second half of February contract and the second half of March contract was assessed at a backwardation of \$3.50/tonne.

The naphtha crack spread versus February ICE Brent crude futures was assessed at \$139.53/tonne on 18 December, versus \$136.74/tonne on 11 December.

In the forward market curve, the swaps spread between February and March was assessed at a \$2.25/tonne backwardation on 18 December.

Meanwhile, the ethylene margin using naphtha feed rose to \$455/tonne in northeast Asia during the week ended 18 December, up by 15% from the previous week, according to ICIS Weekly Margin report.

Over the same report, the ethylene margin in southeast Asia grew by 9% to \$521/tonne.



Supply wise, Asia is expected to receive 1.8m-1.9m tonnes of deep-sea naphtha cargoes from the West in February, similar to the volumes expected to arrive in January, according to traders.

The arbitrage supply is expected to be absorbed in the market easily, given the strong demand in the region.

Some of the supply for January delivery is expected to spill over to February arrivals owing to weather-related shipment delays, they said.

The volumes were seen a dip from December, during which Asia is estimated to be receiving 2.0m tonnes of deep-sea naphtha imports from the western markets, the traders said.

The volumes hail from northwest Europe, the Mediterranean, Russia and the US.

Gasoline blending is seen supported by the US, where apart from an improving economy that will continue to drive up consumption, supply is also tightening amidst unplanned refinery maintenance.

ExxonMobil on 18 December reported a fire at its 502,500 bbl/day Baton Rouge refinery in Louisiana. The company said the fire was extinguished shortly and

was contained to one unit in the refining section of the Baton Rouge complex.

It was unclear if production was affected. Gasoline futures strengthened midday after news of the fire was reported.

Separately, a reformer malfunction at BP's key Whiting refinery in the US and reduced output at Neste Oil's Porvoo refinery in Finland has pushed European gasoline prices up despite a recent fall in upstream ICE Brent crude oil futures

Finland's Neste Oil has reduced run rates at its 200,000 barrels per day Porvoo refinery to 70% of capacity until mid-January because of an equipment malfunction at the site, industry sources said.

Meanwhile, economists expect the US economy to grow by 2.6% next year, while the Federal Reserve funds rate should exceed 1% by the end of the year, according to a survey released by the National Association for Business Economics (NABE) in early December.

Growth next year should pick up from 2015, during which GDP should rise by 2.4%, while job growth next year should exceed 210,000/month, NABE said.

While the market fundamentals are set to be bullish for naphtha, China may curb its naphtha imports once Dragon Aromatics restarts the condensate cracker.

China has been upping its naphtha imports to meet an expanded brood of paraxylene (PX) capacities. Chinese PX producers usually buy heavy naphtha imports as raw material.

Dragon Aromatics shut its 4m tonne/year condensate distillation unit following a blast at its PX facility in April. The plant is located in Fujian, the south-eastern coastal city in China.

Dragon Aromatics usually produces light naphtha which is supplied to the local ethylene makers in China, while it buys condensate feedstock from Iran. Overall,

China has been buying more naphtha overseas this year because of the shutdown.

However, Dragon Aromatics has been negotiating with the local government to restart the condensate cracker. When the cracker comes back online, the likelihood of receding naphtha imports into China will take place as after all, the Chinese economy is expected to falter next year.

### ASIA MTBE BEARISH ON LONG CHINESE SUPPLY IN 2016

By: Trixie Yap | 5 January 2016

SINGAPORE (ICIS)—Asia's methyl tertiary butyl ether (MTBE) looks bearish in 2016 as a result of long supply in China, though some players said they expect support from the gasoline market after last year's demand boom. Even though supply additions outside of the Chinese domestic market were limited in 2016, MTBE is expected to be in oversupply if all current plants run at full optimization, they added.

The only large plant – with a capacity of more than 700,000 tonnes/year of MTBE – to come online by end-2016 will be Sinopec Jinling's joint venture with Huntsman Corp. Domestic plants in China were currently running at much lower than full capacity – around 50% on average – as most of them were restricted by high domestic feedstock raffinate costs since end-October/early November 2015, market players said. However, this situation could change in the near-term since north Chinese plants were starting to explore the option of buying feedstock from alternative sources such as Russia, which could be more competitive, said one China-based producer who purchases local raffinate.

If presented with cheaper feedstock costs, there is a strong likelihood of producers operating their plants at higher rates, which will increase the supply in domestic China, market players said. Even though the rise in cargo availability could be consumed domestically by blenders because of the switch in gasoline specifications from GBIV to GBV for coastal cities in China, there will always be the threat of other more affordable blendstocks - mixed aromatics, toluene and alkylated oil - present, traders said.

GBIV and GBV refer to Guobiao 4 and Guobiao 5 gasoline standards in China, which is equivalent to Euro 4 and Euro 5 standards. Therefore, the possibility remains that the Chinese producers could export more cargoes in 2016. Producers in China are expected to remain opportunistic because of their abilities to switch sale targets quite easily between domestic and exports, traders said. There is a low likelihood that this will happen, unless the yuan-denominated prices drop

faster than FOB (free on board) Singapore barges, they added.

While Chinese producers may not export and add on to the already sufficient supply in Asia, they will continue to import fewer cargoes, resulting in more excess cargoes in other parts such as southeast Asia. Cargo availability from other producers in the Middle East and northeast Asia is expected to remain unchanged, therefore a large part of the market believes that supply fundamentals are still highly dependent on Chinese domestic demand.

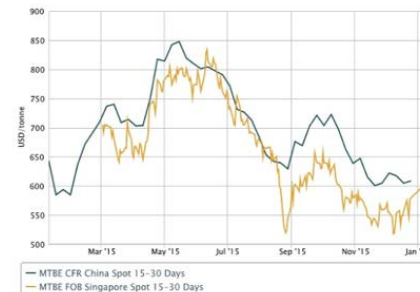
Amid all this bearish sentiment, the profitability of producing gasoline from crude has been high throughout the entire year and most traders are seeking solace in this, hoping that such a situation could continue into 2016. Gasoline cracks – the price difference between RON 92 gasoline prices and Brent crude futures – have maintained at \$11-12/bbl throughout the year, compared with around \$7/bbl in 2014.

Growth has been robust in the gasoline market this year because of the strong demand from the Middle East, Africa and India during the driving season and turnaround period, several traders said. These regions are also expected to see some growth this year in the following year, which could increase the overall demand for gasoline exports from key hubs in northeast and southeast Asia. This, in turn, could result in more demand for MTBE for blending.

However, some market players stayed cautious on that view, since Indonesia is expected to import lesser gasoline after two domestic plants – Pertamina's Cilacap residual fluid catalytic cracker and TPPI's condensate splitter – started up and restarted respectively in the second half of 2015. These changes in demand fundamentals could even themselves out and end up resulting in the same net demand for gasoline in 2016 still, a northeast Asian refinery/producer said.

Moreover, with new regulations within China on gasoline exports, there could be more options for buyers to consider exports from Chinese refineries going forward.

As a result, a bleak outlook continues to



cloud the market for 2016, even though most were still finding hope in the growth of the gasoline blending market.

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