Americas petrochemical outlook H1 2018

Petrochemicals special report
January 2018

Contents
Foreword 2
Aromatics
Octane demand to again play key role for US toluene, xylenes markets 2
Imports, styrene turnarounds could yield softer benzene pricing in Q1 3
Methanol eyes bullish Q1 ahead of major startup 4
Olefins
Ethylene market to tighten with new downstream capacity additions 5
Long-awaited new capacity expected to yield length in US propylene 6
Polymers
Polyethylene market braces for lower pricing as expansions ramp up 7
PET supply concerns grow on possible anti-dumping measures 8
Demand surge in the cards for PVC on rebuilding efforts in US, Caribbean 9
Latin polymers
PE markets enter year focused on US capacity additions 10
Logistics
Expansions, upgrades on tap as polymer exports boom 12
FOREWORD

Major capacity additions stand to again play a prominent role in key petrochemicals markets in the Americas in 2018 as the US industry rebounds from Hurricane Harvey-related disruptions and project delays.

In fact, if 2017 stands to be defined by Harvey and the havoc it wreaked on the industry in late August — at its peak, knocking out 60% of US ethylene capacity — the new year appears primed to shake things up from the outset, with strength in global crude prices lifting some markets and expectations of ballooning surpluses depressing others.

Crude will continue to play a leading role globally, and 2018 already has seen oil prices reach three-year highs on supply and geopolitical concerns.

For North America and the Caribbean, rebuilding efforts could be a huge factor in demand for key chemicals and polymer resins, such as PVC, during the first six months of the year.

Harvey flooded thousands of homes and automobiles along the Texas coast with record rainfall, while hurricanes Irma and Maria pummeled the Caribbean. Estimates peg the cost of the 2017 hurricane season at over $200 billion.

Massive wildfires in California caused record death and destruction, with the economic toll also estimated in the hundreds of billions of dollars. In Mexico, major earthquakes in September killed scores and leveled buildings from Mexico City to Oaxaca.

In Latin America, polymer market participants on both sides of the table will be keeping a close eye on the pricing dynamics in the US Gulf Coast region, particularly the polyethylene side, amid expectations of lower pricing.

The strength of the US dollar will remain a focal point in the region, where weak exchange rates and limited access to credit have stymied trade in recent years.

This report highlights key themes that stand to shape the industry in the Americas during the first half of 2018.

These include expectations of stronger pricing for ethylene, propylene, polypropylene, and methanol in North America on the back of upcoming turnarounds and/or delayed capacity startups, as well as supply concerns on the PET side resulting from possible antidumping measures on key imports and the recent bankruptcy filing by a major producer.

But they also include calls for downward movement in PE pricing as new capacities reach the market, as well as expected length in benzene during Q1 resulting from imports and derivative styrene turnarounds.

— Bernardo Fallas

AROMATICS

OCTANE DEMAND TO AGAIN PLAY KEY ROLE FOR US TOLUENE, XYLENES MARKETS IN 2018

Relatively speaking, 2017 was an underwhelming year for many in the US aromatics markets. Initial expectations headed into the year were that both toluene and mixed xylenes would see a bump in demand related to the implementation of the federal TIER 3 emissions regulations in the US, which sought to reduce the sulfur content in gasoline.

The hope was that aromatics products such as toluene and mixed xylenes, given their high octane value and low sulfur content, would be viewed as ideal blendstocks and demand from gasoline blenders would increase. But those expectations were unrealized and prices were muted throughout much of the year.

With demand from the blending segment weaker than expected, demand from the chemical segment proved to be ever more important. Disproportionation margins, spotty throughout 2017, proved to be a boon to toluene with healthy margins driving toluene demand in the first quarter and again in Q4. Given strength in benzene and softening toluene, dealkylation and disproportionation demand is expected to drive toluene throughout the majority of Q1.

Those in the mixed xylenes market have been less fortunate as derivative demand proved to be a question mark following the emergence of financial issues at M&G Chemicals earlier this year and uncertainty emerged surrounding the company’s world-scale PTA and PET project at Corpus Christi.

Toluene fared well to finish the year as a surge in benzene prices revived disproportionation and dealkylation margins. However, toluene prices gained in early December as the sustainability of benzene beyond January remained questionable. In the near term, benzene supply will remain snug, with import volumes falling in November. November

MX-REFORMATE SPREAD WEAKENS

Source: Platts
benzene imports fell nearly 33,000 mt from the previous month, closing at near 61,000 mt, however rebounded in December with near 100,000 mt heard landed on US shores.

With those holding inventory subject to ad valorem taxes, December import volumes were expected to remain relatively soft. Headed into Q1, demand from restocking, coupled with seasonal refinery maintenance will support benzene pricing. This will be crucial as toluene demand in the near term will be dependent on disproportionation margins, which are heavily subsidized by benzene pricing.

That said, the variables that impact benzene pricing will be the ones to watch. For instance, China is looking to implement anti-dumping duties on several US styrene producers. Theoretically this could dent benzene demand and pressure pricing. A shift in recent trade flows in which China curbs benzene imports could also put downward pressure on benzene. China has regularly taken in close to 200,000 mt or more throughout 2017 and any reduction in volumes would likely be redirected to the US.

For mixed xylenes, the outlook is slightly less optimistic. Prices have been pressured lower to start December and buy interest has been thin. This has been due largely to weak derivative demand in the US paraxylene market, associated with uncertainty in the PTA and PET segments. PX demand fell off in H2 2017 as M&G Chemicals financial woes resulted in the temporary shutdown of PTA units at Cangrajera, Mexico, reduced PTA run rates at Suape, Brazil, the closure of its 360,000 mt/year Apple Grove, West Virginia, PET unit and questions about the future of its world-scale PTA and PET project in Corpus Christi.

Though there is talk of a potential buyer for the Corpus Christi project in Q1, near-term domestic PX demand in the US is expected to remain muted. Headed into the new year, mixed xylene demand was limited, and weak extraction economics and strong reformate blend values could tighten the market in January and February.

Few indicators suggest these fundamentals will change much, although the market could see an increase in octane demand as gasoline makers shift to summer-grade production in Q2. Historically both toluene and mixed xylene have been the beneficiary of octane demand and this will be significant going forward amid the continued efforts to reduce sulfur content in gasoline and as producers progress in meeting TIER 3 requirements. As blendstocks, US aromatics will continue to compete with cheaper products such as reformate and alkylate, an uphill battle when one considers that some producers, such as Valero, are investing in octane production and blending capacities.

— Kevin Allen

**IMPORTS, TURNAROUNDS SHIFT DYNAMICS IN US BENZENE, STYRENE MARKETS**

Tight supply in benzene and styrene at the end of 2017 played a new tune for market participants from prior months, but that is shifting for 2018 with benzene imports to arrive from December to February and upcoming derivative styrene turnarounds during the first and second quarters of 2018.

After US benzene pricing increased around 36% from the beginning of Q3 to Q4 2017, market participants are heading into 2018 with expectations for benzene to retract those gains during January and February.

US benzene's performance during Q3 and Q4 were “just like old times,” a source said, referring to the volatility that market participants were accustomed to prior to the major crude oil decline in 2015, when price swings in a single day would be 10-20 cents/gal. However, benzene demand is expected to weaken because of global derivative styrene turnarounds during Q1 2018, sources said.

Inventories initially shrank after Hurricane Harvey resulted in lower refinery run rates. This was while the US was seeing a lower flow of benzene from South Korea as it had been for much of 2017. The US is typically net short benzene production and depends on imports, primarily from South Korea, to balance the deficit.

The impact of a shorter US balance was benzene rising above $3/gal at the end of October, assessed at $3.14/gal FOB US Gulf Coast. US spot pricing has remained above $3/gal since and indications into February still showed benzene pricing higher than that level.

“Supply will be tight into January, which means periods of short-covering will remain possible,” a source said.

 Arbitrage opportunities for South Korea to send benzene to the US were attractive for most of November and peaked around $160/mt on November 13, which was the highest for 2017 thus far, based on S&P Global Platts data. The FOB Korea-US benzene spread has averaged $96/mt since benzene moved higher than $3/gal at the end of October. Freight during this period

**KOREA-US BENZENE SPREAD**

Source: Platts
was estimated by market participants at $70-$75/mt. Economics also supported more flow of European benzene to the US at times.

Sources said participants took advantage of those arbitrages, and there’s quite a bit of product headed to the US that would ultimately push benzene below $3/gal sometime during Q1. Additionally, arbitrages for Asia to send benzene to the US closed on December 21 as the spread between forward-month US pricing and FOB Korea pricing was at $56/mt, Platts data showed.

The market is accustomed to this trend of sharp drops in US benzene pricing after supply tightness, sources said.

“Spot benzene prices will fall as fast as they gained,” a trader source said.

January benzene contracts settled 8-18 cents/gal lower at $3.22/gal. Some market participants thought contract prices for January would see an even steeper decline because spot pricing fell as low as $3.06/gal FOB USG for January on December 22, based on Platts data.

There are derivative styrene turnarounds taking place, mostly during Q1 2018, that will weaken benzene demand, sources said. The US, Europe and Asia have turnarounds in styrene, sources added. However, while these dynamics are anticipated to result in cheaper benzene pricing, styrene pricing is expected to rise.

US styrene producers have already sold out of material for December and January prior to turnarounds, sources said. Additionally, China could look to buy from the US ahead of turnarounds in Asia, which would push US pricing up more.

Another part to consider is the benzene-styrene spread. The spread peaked at just above $850/mt in February 2017 when dynamics were just as participants expect them to be during Q1 2018.

The benzene-styrene spread may have already started to shift toward that trend. In November, the spread was consistently below $200/mt, but gains in spot styrene pricing have resulted in a spread back above $300/mt.

With market developments supporting cheaper benzene pricing and higher styrene pricing, the trend in February could be similar to 2017, a source said.

There was less correlation in US and Chinese styrene prices toward the end of the year due to the uncertainty of whether China would impose antidumping duties. US participants have proceeded with caution at the end of 2017.

“You just never know with situations like this. There most likely won’t be any findings of antidumping, but taxes could still be imposed,” a source said.

Market participants expect a final decision on whether or not taxes will be imposed in February.

If the profitability of producing styrene is as good as what we saw for 2017, market participants expect the flow of US styrene exports to China to see minimal impact if taxes are not substantial.

— John Calton

**US METHANOL EYES BULLISH Q1 AHEAD OF STARTUP**

A rally in global methanol pricing to close 2017 has set the stage for US spot and contract levels to remain firmly above the $1/gal mark at the start of 2018, but a long-awaited capacity addition in the Gulf Coast could pressure prices lower by midyear, market sources said.

The startup of Natgasoline's 1.75 million mt/year methanol plant in Beaumont, Texas, will add significant length to an already oversupplied US market. The plant, a joint venture between OCI and G2X Energy, was originally scheduled to begin production in fourth-quarter 2017. It is now slated for startup during second-quarter 2018, sources said.

Once operational, it will bring total US capacity to a record 7.5 million mt/year, as part of the shale-gas driven petrochemical boom seen in North America in recent years.

US spot methanol pricing was assessed Thursday at 124 cents/gal ($440.20/mt) FOB USG, the highest since April 15 (124.50 cents/gal).

Pricing surged more than 33% over the final two months of 2017 on global supply tightness driven by production issues in Southeast Asia and the Middle East. The upward trend is expected to continue into Q1 2018, supported by planned outages in the US Gulf Coast as well as uncertainty in Venezuela, a major regional producer, sources said.

While market consensus points to the possibility that prices might strengthen further, expectations call for prices to soften once the Natgasoline production comes online.

**DEJA VU: US METHANOL BULLISH TO OPEN YEAR**
If the narrative sounds familiar, it is because 2016 closed under similar circumstances. The market expected firm spot pricing above the $1/gal mark through the first half of 2017, followed by decreases as Natgasoline was expected to come online in H2 2017.

The former developed as expected. Spot pricing opened the year at 105 cents/gal and rose as high as 130 cents/gal – a level not seen since October 2014 – in late February before shedding more than 42% of its value and hitting a seven-month low of 75 cents/gal in mid-April.

The latter, however, did not go as planned. Natgasoline’s startup was delayed six months from its previously planned Q4 2017 start due to disruptions from Harvey, which hit the Texas coast as a Category 4 hurricane in late August, a source close to the company said.

The storm, which temporarily affected production along the Texas coast, and Natgasoline’s subsequent startup delay, contributed to the rise in US spot pricing during the second half of the year, sources said.

Until mid-December, market expectations called for Natgasoline’s startup to occur in mid-March, but some sources said May was a more realistic timeline. Confirmation from OCI or G2X was unavailable by time of publication.

Once the new production comes online, US exports will rise, and extra volume could be shipped to Europe, a source close to the company said.

“The volume is so large that I don’t think the domestic market can consume all, so the US will become a net exporter,” another market source said.

North American spot market transactions typically get referenced off an average of monthly posted contract prices from Methanex and Southern Chemical Corp., the two main producers on the Gulf Coast.

Methanex ranks as the world’s largest methanol producer by capacity, SCC serves as the US distributor for Methanol Holdings Trinidad, the largest producer in the Americas at 4.1 million mt/year.

Sales from Natgasoline’s new production are expected to be priced off the average of the two monthly methanol contracts, a source close to the company said.

The average realized contract price during H2 2017 was 115 cents/gal. Over the final six months, Methanex’s and SCC’s contracts rose nearly 10%, or 14 cents/gal and 11 cents/gal, respectively.

The bullish sentiment to start the new year was evident earlier this week, when both Methanex and SCC announced double-digit increases for their January non-discounted contract price references.

SCC nominated a 20-cent increase to 142 cents/gal, while Methanex nominated a 22-cent increase to 144 cents/gal. S&P Global Platts assessed December’s net CP at 104.55 cents/gal.

“For me, it’s a little bit surprising, but this is a market that is so volatile that anything can happen,” a market source said.

— Dario Campbell

OLEFINS

US ETHYLENE MARKET EXPECTED TO TIGHTEN WITH NEW DOWNSTREAM CAPACITIES

The US ethylene market is slated to see supply tightness in 2018 as new steam cracker capacities saw startup delays while downstream capacity additions continue to come online ahead of new steam cracker startups.

Six new polyethylene lines totaling more than 1.97 million mt/year of polyethylene capacity in the US Gulf Coast region are scheduled to come online next year.

In 2017, 3.16 million mt/year of new polyethylene capacity has already come online, ahead of new ethylene capacity addition startups.

And while nearly 5.5 million mt/year of additional ethylene capacity was scheduled to come online in the USGC region in 2017, only 2.044 million mt/year of that was able to come online — due in part to the effects of Hurricane Harvey.

Harvey made landfall on the Texas Coast as a Category 4 hurricane, dumping more than 51 inches of rain in places, before moving farther east to swamp far southeastern Texas.

As a result, Chevron Phillips Chemical, ExxonMobil’s 1.5 million mt/year steam crackers and Indorama Ventures’ 440,000 mt/year cracker have seen delays in startups, pushing the production dates from 2017 to 2018.

Dow Chemical and OxyChem were the only companies that were able to produce material from their new steam crackers in 2017. OxyChem started up its 750,000 mt/year new ethylene market is slated to see supply tightness in 2018 as new steam cracker capacities saw startup delays while downstream capacity additions continue to come online ahead of new steam cracker startups.

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Dow Chemical and OxyChem were the only companies that were able to produce material from their new steam crackers in 2017. OxyChem started up its 750,000 mt/
year cracker in Q1 2017, while Dow Chemical was able to startup in September, just one month after Harvey’s arrival — partly due to the unit commissioning before the hurricane’s arrival.

With most of the new polyethylene capacity already online this year and a majority coming online next year ahead of the steam crackers, the mismatch in timing could result in a pull of ethylene inventories in the US Gulf Coast region resulting in stronger pricing, multiple market players have said.

With domestic demand from polyethylene pulling most of the ethylene supply, exports are expected to be limited in the short-term, sources said.

Currently, the US ethylene market counts on only one export terminal, which is located along the Houston Ship Channel. The 300,000 mt/year facility is contracted to Mitsubishi Chemical and operated by Targa Resources.

Enterprise Products Partners and Odfjell Terminals have expressed interest in building ethylene export facilities.

Enterprise in July signed an agreement with London’s Navigator Holdings with plans to develop an ethylene export facility at its Morgan’s Point terminal on the Houston Ship Channel, about nine miles north of Odfjell’s terminal at Bayport. Enterprise has not announced whether it will move ahead on that project.

However, the company has said it is planning to convert an ethane storage cavern at its Mont Belvieu operations to hold ethylene and will build a 24-mile, bidirectional pipeline from Mont Belvieu to Morgan’s Point and Bayport, near Odfjell’s potential project. Multiple producer ethylene pipelines operate at Bayport, providing potential connections to both Odfjell and Enterprise.

Odfjell, meanwhile, has delayed an investment decision on a terminal in Seabrook, Texas, until the first quarter of 2018.

Odfjell already had delayed an FID on the proposed $250 million-$300 million project at its terminal on the Houston Ship Channel to the second half of 2017 from last summer amid ongoing negotiations for customer commitments. Odfjell has completed basic engineering for the proposed 750,000 mt/year facility, and secured all necessary permits, the company said in a quarterly earnings presentation.

Both Odfjell and Enterprise are seeing delays in the proposed projects due to delays in securing customer contracts for export.

But growing global demand has made cheap US-origin ethylene very attractive. Spot US ethylene pricing has averaged 48% lower than CFR Northeast Asia pricing and 45% lower than CIF Northwest European pricing, according to S&P Global Platts data.

Strong demand from international markets and domestic downstream polyethylene capacity additions are leading to a bullish outlook on US ethylene.

— Nida Qureshi

NEW PDH CAPACITY TO EASE PROPYLENE TIGHTNESS

A major propylene capacity addition in the US Gulf Coast is expected to lengthen propylene supply and thus decrease derivative polypropylene pricing to make the US a more globally competitive player in the resin market.

Startup of Enterprise Products Partners’ 750,000 mt/year propane dehydrogenation unit in Mont Belvieu, Texas, which has been pushed back multiple times, is now expected in the January–February timeframe, the company said in a recent filing with state regulators.

The PDH unit, only the third of its kind in North America, has seen many delays and was most recently expected to come online by end of December, but those plans were thwarted when Hurricane Harvey hit the Texas coast in late August, the company said during a conference call to discuss third-quarter earnings.

Hurricane Harvey, which made landfall in the middle of Texas as a Category 4 hurricane, dumped more than 51 inches of rain in places, before moving farther east to swamp far southeast Texas.

In fact, sources pointed to these Harvey-related issues earlier in the year to explain why spot and contract pricing shot up on tightness resulting from unplanned outages and delays in startup of the much anticipated capacity in the US Gulf Coast region during the second half of 2017.

Spot polymer-grade propylene rose nearly 21% since Harvey’s arrival in late August to a five-month high late September at 49.25 cents/lb ($1,064/mt) FD USG. Refinery-grade propylene rose over 45% in the same time frame, hitting a seven-month high of 38.50 cents/lb ($849/mt) FD USG.

Nearly 60% of US steam-cracking capacity, about 22% of refinery capacity, and most of the polymer capacity in the US Gulf coast was offline due to Hurricane Harvey, according to S&P Global Platts estimates.

In the polypropylene market, the biggest demand pull for propylene, spot homopolymer pricing shot up nearly 21% since Harvey to a seven-month high of $1,345/mt (61 cents/lb) FAS Houston in October.

As a result of the spike in pricing, US polypropylene exports declined nearly 58% from August to September, according to data from American
Chemistry Council, and have remained limited, with sources noting that US export pricing remains too high to be globally competitive.

A US-based trader source said spot resin would have to be around the mid- to high-40s cents/lb railcar to attract interest from international buyers, but with spot and contract feedstock PGP pricing more than 10 cents/lb above that level, it was unlikely that producers would be willing to offer PP resin at those levels.

December PGP contract prices were settled 1 cent/lb higher at 50 cents/lb delivered, marking the sixth consecutive increase for propylene contract prices and 8.50 cents higher than where contracts began 2017, according to S&P Global Platts data.

Even on the domestic side, polypropylene demand has been talked slower as some buyers were waiting to purchase due to expectations that PP pricing would move lower as feedstock propylene pricing begins to decline, sources said.

Talk of a wait-and-see approach came as market participants await full-rates production at Enterprise's new-build PDH unit, with expectations that monomer PGP pricing could decrease once availability improves.

But market participants have cautioned that, if history is any indication, it could take a few months to possibly a year to achieve stable run-rates at a new-PDH unit, leaving many users cautious about fully relying on a steady supply from a new-build in the short term.

This uncertainty has lead polypropylene market participants to expect competitive domestic pricing in the first half of 2018 as sources expect an increase of imports to enter the US market in the timeframe.

But as the PDH unit stabilizes and monomer pricing begins to fall, polypropylene pricing will decrease, leading to a drop in imports and an uptick in export activity, sources said.

Even with demand from the resin side strong, no major expansions are scheduled online for at least the next two years to absorb the recent and upcoming addition on the propylene side, further feeding the bearish outlook, sources said.

— Nida Qureshi

POLYMERS

US POLYETHYLENE CAPACITY BOOST COULD LEAD TO LOWER PRICES IN Q1

With roughly 3.5 million mt/year of new polyethylene capacity coming online in the US Gulf Coast during the second half of 2017, an abundance of available export resin during the fourth quarter — likely at a lower price — appeared to be a foregone conclusion to market participants.

Then Hurricane Harvey hit and proved to be the proverbial perfect storm that pushed back those plans, disrupting the inevitable flood of polyethylene destined to travel from the US to South America, Asia, Europe and all points in between.

As 2018 approaches, the expectation is that those excess pounds — and likely lower prices — could finally materialize for both the domestic and export markets in the first quarter. Prices for both US contracts, and export resin on an FAS Houston basis, appear poised to face downward pressure, markets sources have said, with some suggesting lower prices through March.

At its peak, more than 60% of US ethylene and PE capacities were offline following Harvey, according to S&P Global Platts estimates. Industry data showed a loss of more than 272,000 mt of production in August and September compared with the same period in 2016.

Another side effect of the storm was that it appears to have shifted the time frame for the impact of new resin to be felt, sources have said.

The typical year-end surge in exports from the US — which usually begins to ramp up in November — had yet to materialize in early January, and while prices have moved somewhat lower for certain grades to open December, significant export volumes have not been available, export sources have said.

“I think we really start to see it in January,” a trader source said.

Even with prices moving lower for December and into early January, some traders said they were hesitant to take significant positions, opting instead to push for back-to-back trades due to expectations prices would continue to move down after the start of the new year.
Export prices for high-density blowmolding averaged $1,172/mt FAS Houston in December compared with an average of over $1,277/mt for November, according to Platts data. Early January indications called for stable to lower pricing for January.

The market also has included talk of short selling in recent weeks, which some sources have attributed to weak buy interest in key export destinations, but also to some exporters likely shedding more expensive resin already held in inventory.

Traditionally, PE export prices dip in the fourth quarter as producers clear inventory to avoid year-end taxes, then rise early in the year when restocking takes place in the domestic market.

That scenario seems unlikely this time around. December export discounts were not as steep as those seen in recent years and there remains downward pressure on the domestic market, due in part to in capacity expansions.

On the domestic front, sources have suggested the combined 10 cents/lb in increases implemented over the course of August, September and October as a result of Hurricane Harvey-related disruptions could be removed by the end of Q1 2018. Some of the decreases could possibly come through individual pricing adjustments and resetting of base contract levels for 2018, sources said.

While early December expectations called for a decrease of 3-4 cents/lb, producers managed to hold prices flat on a market-wide basis.

However, a number of downward adjustments to individual customers — talked by market sources in the range of 3-6 cents/lb depending on grade and volume — did leave many buyers with a decrease heading into 2018. Platts assessed contract prices lower for December based on the downward adjustments.

Domestic HDPE contracts were assessed to end December at 65.5-66.5 cents/lb ($1,444-$1,466/mt) delivered rail-car basis for blowmolding, 65.5-66.5 cents/lb ($1,444-$1,466/mt) for injection, and 68.5-69.5 cents/lb ($1,510-$1,532/mt) for film, while LLDPE butene contracts were assessed at 63.5-64.5 cents/lb ($1,400-$1,422/mt) and LDPE was at 75.5-76.5 cents/lb ($1,665-$1,687/mt) for delivery rail cars.

Uncertainty around December contracts has lead to mixed expectations for January, with sources noting that buyers who got decreases at the end of 2017 would likely push for small decreases, while buyers who were flat would be inclined to seek bigger reductions.

After back-to-back years of flat growth in the domestic market, activity picked up in 2017, and that trend could be poised to continue as new resin continues to come online.

While total PE sales in the US and Canada have seen a slight year-on-year decrease (down almost 1%) through October, domestic sales in the US and Canada are up 2.7% compared with the first 10 months of 2016, American Chemistry Council data showed.

The coming year also will bring additional capacity to the US, with new starts by Formosa Plastics in Point Comfort, Texas, (750,000 mt/year of combined HDPE, LLDPE and LDPE capacity) and Sasol in Lake Charles, Louisiana, which will produce 870,000 mt/year of LDPE and LLDPE grades at its first solo US polyethylene site. Sasol's HDPE joint venture with Ineos started up during Q4 2017 in Texas.

— Chris Ferrell

The US polyethylene terephthalate market in 2018 will likely face challenges due to supply uncertainty related to a significant PET producer’s financial woes, plus an upcoming US ruling on potential antidumping duties for PET imports.

These issues could also affect markets for PET feedstocks purified terephthalic acid and monoethylene glycol.

One way the US market was expecting to wean off of PET imports in 2017 was via the scheduled completion and startup of Italian chemical group M&G’s 1.1 million mt/year PET plant in Corpus Christi, Texas, with a PTA capacity of 1.4 million mt/year to follow.

M&G has said Corpus Christi plant would rank as the largest single-line PET plant in the world, and it had planned to target the US market with the PET it produced there, which would in turn limit the volume of imports to the US West Coast, the country’s primary import hub, a source with knowledge of company operations said previously.

But the project — already beset by delays that had pushed back its initial 2015 scheduled completion target because of contractor, weather and financial issues — is now looking
for a buyer. M&G USA filed for Chapter 11 bankruptcy protection in the fourth quarter and is seeking to sell the unfinished project after cost overruns and delays left the company grappling with a $1 billion debt, according to a court filing.

Other US assets up for sale include a 360,000 mt/year PET plant in Apple Grove, West Virginia, and a research and development center in Ohio.

Sources have said they are awaiting clarity on the M&G situation, and that the major PET buyers have had to look for additional volumes to cover what they were receiving from M&G.

In the short term, sources anticipate that imports will rise to fill any supply gaps left by the M&G void. Imports are expected to come from South American and Asian countries, especially before potential antidumping duties are implemented.

The US Department of Commerce has an antidumping investigation underway on PET imports from Brazil, Indonesia, South Korea, Pakistan and Taiwan, and is expected to release its initial findings on March 5, followed by final determinations on May 21.

The US International Trade Commission has already made a preliminary injury determination that imports from the five countries were injuring US producers. This determination means Commerce’s investigation could continue.

Should the department rule in favor of the petitioning parties, it will instruct US Customs and Border Protection agents to begin collecting cash deposits from US companies importing product from the sanctioned countries.

The antidumping probe arose out of a petition filed in September by DAK Americas, Indorama Ventures USA, M&G Polymers USA, and Nan Ya Plastics Corp., although Indorama Ventures USA was not a petitioner to the investigation on imports from Indonesia. The petition said that PET imports jumped 305% between 2014 and 2016. Industry participants had said earlier that the antidumping case could encourage buyers to procure more spot cargoes from the listed countries before any trade measures are implemented.

As the case has moved along, however, the now- looming likelihood that penalties could be levied has forced the hand of buyers, and one trader source is “seeing some US customers bailing on PET from the countries that could be affected.”

Another source echoed this, saying US customers are choosing to conduct business with countries that are not affected by the trade case, prompting those countries to place premiums on their product due to the increase in demand, another trader source said.

The premiums and uncertainty regarding the antidumping duties have contributed to upward pressure on current US PET spot pricing, which reached 2.5-year highs on December 6, when it was assessed at $1,367-$1,389/mt (62-63 cents/lb) DDP US West Coast.

If duties are indeed levied on imports from the five countries, such premiums could rise further, sources said, as US buyers will continue to seek to replace those imports with material from other locations.

In 2016, imports of PET resin from Brazil, Indonesia, South Korea, Pakistan and Taiwan stood at 58,397 mt, 35,420 mt, 26,133 mt, 36,767 mt and 115,327 mt, respectively, according to Commerce data, for a total of 272,044mt.

— Anthony Garcia

PVC DEMAND TO RISE ON AMERICAS REBUILDING

Epic flooding. Ferocious hurricanes. Savage fires. A ruthless earthquake. Long after disasters hit, as they did in the Americas throughout 2017, comes the rebuilding and the need for raw materials to repair what has been broken.

In the petrochemical world, that bodes well for polyvinyl chloride, used to make plastic construction staples such as pipes, vinyl siding, electrical insulation, flooring and window frames.

US PVC manufacturers expect PVC demand growth ranging from 2%-3% in 2018 with non-disaster related major construction projects, and likely more with the crawl back from hurricanes Harvey, Irma and Maria, unprecedented California wildfires, and devastating earthquakes in Mexico.

“With all this rebuilding activity, I think next year will be quite bullish, depending on how strong the global economy is,” a PVC producer source said. “Emerging economies which are PVC import markets need to come back strongly.”
While North America has seen a huge boom in ethylene and polyethylene capacity construction along the US Gulf Coast, polyvinyl chloride capacity remains largely stagnant other than relatively small debottlenecking projects.

Polyethylene is used to make the most widely used plastics worldwide with demand intertwined with GDP and population growth. About 60% of polyvinyl chloride output is used for construction, also GDP- and population-sensitive, but seasonal, as well, when activity slows during winter months.

“Winter time, when the weather’s bad, you cannot build or the demand goes down,” Westlake Chemical CEO Albert Chao recently said. “Most people do not make a good return on the PVC chain, hence there’s no capacity added.”

US PVC prices hit a record high of $1,290/mt FAS Houston on July 30, 2008, at the height of a construction boom fueled by subprime lending, according to S&P Global Platts data. By November 12 that year the global financial crisis had burst, pushing PVC prices to $502.50 as construction dried up.

By April 2011, PVC prices had rebounded to $1,290/mt FAS Houston. Slow economic growth and high unemployment then helped push prices down to $765/mt FAS Houston by October that year – just $5/mt more than levels reached in November 2017 after prices fell more than 17% from post-Hurricane Harvey highs in September.

PVC prices have since begun rebounding, rising more than 7% to $815/mt FAS Houston by early January, and market participants expect the uptrend to continue.

Two PVC producers are planning PVC expansions. Formosa Plastics is seeking state permits to expand capacity of its 513,000 mt/year PVC plant in Baton Rouge, Louisiana, by $136,000 mt/year, the company said. Formosa’s permit application filed in December said construction is slated to start in the second quarter of 2019, followed by startup in the last three months of 2020.

Shintech, the US arm of Japan’s Shin-Etsu, also is seeking permits to expand PVC output at its Plaquemine, Louisiana, complex by 58% to more than 1 million mt/year, according to documents submitted to the Louisiana Department of Environmental Quality. The company also wants permits to build a new 1 million mt/year vinyl chloride monomer unit that would also produce raw materials further upstream the PVC chain — ethylene dichloride monomer, chlorine and caustic soda.

Shintech has asked for a final decision on permits by May 2018, though the company has made no official announcements of its PVC plans.

“We’re studying it,” said a source familiar with Shintech operations. “We’re seeing rather moderate but probably sustaining growth while almost no one is trying to expand.”

Westlake has hinted at expanding as well. Company CFO Mark Bender noted at a November energy conference that environmental regulations have required reductions in coal-fired PVC production in China and closures of mercury-based chlorine production in Europe.

“We continue to see a good runway for the industry with limited capacity adds here in the Americas, in fact, the entire Northern Hemisphere,” he said.

One issue that could tighten US PVC supply and boost prices in 2018 is the lingering outage of organic peroxide production — a critical catalyst in PVC manufacturing — at French chemical giant Arkema’s complex in Crosby, Texas. Harvey swamped the complex, and multiple governmental investigations are underway after volatile peroxides left without crucial refrigeration warmed up, ignited and burned. The complex could remain shut for months, forcing PVC manufacturers to import peroxides to fill the gap, increasing production costs.

The Netherlands’ Akzo Nobel, one of the few other manufacturers of organic peroxides, is trying to spin off or sell its specialty chemical division by April 2018, potentially allowing Westlake or another manufacturer to buy it and bring that production in house.

“To the extent there are opportunities that make sense, always we’re interested,” Bender said of Akzo Nobel’s efforts. “We’ll watch with interest.”

— Kristen Hays

LATIN POLYMERS

FOR REGIONAL PE MARKETS, ALL EYES ON US CAPACITY EXPANSIONS

Buyers in Latin America spent much of 2017 eyeing the first wave of polyethylene capacity expansions and additions along the US Gulf Coast, waiting for cheaper resins to hit
their shores. But after Hurricane Harvey threw off timelines and expectations at summer’s end, market players in South America now enter the first half of 2018 hoping that good things come to those who wait.

Harvey and its record-breaking damage had a profound impact on the US petrochemical industry, and, in turn, Latin America’s markets, which for much of 2016-17 had become a prime destination for US exporters due to short transits, cheap freight and pre-existing deficits. Production shutdowns, delays to new capacity and logistical problems were all seen in the weeks and months following Harvey’s August 25 landfall, relegating much of the remaining PE resins to contractual domestic US consumption, sources said.

At its peak, more than 60% of US ethylene and PE capacity was offline following the storm, according to S&P Global Platts estimates.

With the flow of US PE resins into South America essentially eliminated entering September, global and regional price increases were almost immediately felt by some of Latin America’s biggest markets. Global pricing rose in line with tightening supply, leaving many Pacific importers in a position they didn’t expect entering the third quarter.

Along South America’s Pacific Coast, buyers saw import pricing rise $125-$180/mt, or 10-15%, between August 23 — two days before Harvey made landfall — and October 18, according to S&P Global Platts data.

Similar pressure was felt in Brazil, where import pricing rose $120-$170/mt, or 11-15%, during the same period, Platts data showed. Harvey’s effects were also felt in the Brazilian export and domestic markets, which saw prices rise 15-16% and 8-10%, respectively, during the same period.

Entering 2018, most of that pressure on pricing is starting to be relieved, be it by new capacity finally coming online or US destocking typically seen in November finally happening in December, sources said. As US production and logistics shed the lingering effects of Harvey, importers in Latin America expect to see what the industry promised: cheaper pellets and lots of them.

“Buyers didn’t panic when Harvey hurt US imports, they just adjusted their volumes since it was already almost Q4,” an international trader said. “Very early, we saw some bigger deals, but that was for what was already available, not future cargoes. Most people just turned to the domestic market or other regions for smaller volumes while waiting for the US to stabilize.

“Now, we are starting to see the interest for bigger volumes for January and most buyers are going to need to restock in January and February.”

Expectations for economic growth are also lending optimism to the Brazilian markets following GDP contractions in 2015 and 2016, sources have said.

After saying growth in South America had “bottomed out” in 2016, the International Monetary Fund has pegged Brazil’s growth at 0.7% for 2017 while pointing to further gains in 2018 — to the tune of 1.5% growth for Latin America’s biggest economy.

“A gradual restoration of confidence — as key reforms to ensure fiscal sustainability are implemented — should raise growth to 2% in the medium term,” the IMF said of Brazil in an October report.

Regional producers have also seen the positive writing on the wall for 2018 expectations, with at least one South American company planning for minor capacity additions to PE facilities in Mercosur, a company source said. Additionally, Braskem has already registered higher domestic sales in 2017 when compared to 2016 — largely in part due to economic recovery, a stronger Brazilian Real and reduced imports following Harvey.

Braskem enters 2018 optimistic about South America’s polymer markets, with a company analyst saying it expects 4-5% growth for both the domestic PE and polypropylene markets.

Home to major production by Dow Chemical, Argentina is also poised strengthen, pegged to grow by 2.5% in 2018 on stronger investment, better consumer demand and wage gains as inflation moderates, the IMF said, adding that “opening up the economy to international trade and improving domestic competition in product markets” would be key.

Argentina is home to the second-largest technically recoverable wet shale gas reserves in the world, according to the US Energy Information Administration.

Dow plans to invest $210 million in 2018 and 2019 in Argentina as natural gas supplies increase for feeding its ethylene and PE business, Gaston Remy, CEO of Dow

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**SOUTH AMERICA SPOT LLDPE PRICING**

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Argentina, said in October. And while Remy didn’t specify in what the funds would be invested, Dow in a statement said the investment would “optimize even further the performance of the company’s petrochemical site” in Bahia Blanca.

Likewise, Mexico is eyeing consistent and affordable ethane for its growing petrochemical industry, company executives have said. Braskem and Mexico’s Grupo Idesa have developed a joint venture, the Ethylene XXI complex in Mexico’s southern Veracruz state, with a nameplate capacity of 1.05 million mt/year of polyethylene.

This year saw Etileno XXI’s PE plants operate at 87% of capacity in the third quarter, up 4 percentage points from Q2. Braskem said during its most recent earnings call.

Alternatively, some of Idesc’s future feedstock needs may be met by US imports or regional development, said Jose Luis Uriegas, CEO of Grupo Idesa, adding, “if we have to import, we’ll import.”

— Phillipe Craig

LOGISTICS

PETROCHEMICAL LOGISTICS GROWING WITH EXPORTS

When it comes to the North American polyethylene boom, growth begets growth, and 2018 will show millions of tons of North American-made pellets moving to global markets via critical supply chain links that pumped up plans to package, transport and ship plastics in tandem with coming waves of new manufacturing infrastructure.

Fourteen new polyethylene plants are starting up from 2017 through 2019 in the first wave of new steam crackers and PE plants to emerge from easy access to super-cheap ethane from the US natural gas boom.

Seven are operating or undergoing final testing before startup. Altogether, they will be able to produce nearly 6.4 million mt/year of PE, the most widely used type of plastic that makes everything from cookie packaging and grocery bags to detergent bottles, buckets and cellophane wrap. Another 4 million mt of PE output could start up by 2020 and beyond, though some projects await final investment decisions, and ExxonMobil and Sabic have yet to disclose capacities for plants they plan to build at a new complex in Texas.

However, North America already is oversupplied. In 2016, US PE capacity was 23.4 million mt/year, and 90% of its 4.2 million mt surplus was exported, according to US trade statistics. Most if not all new output is expected to ship out as well, mainly to Asia, Central and South America and Europe.

Ports, railroads and packagers — companies that use massive machines to pack pellets into 55/lb or 1/mt bags for export in containers — are getting in on the action with capacity expansions, new builds and facility upgrades to handle the coming cascade.

In 2016, Houston, home to the second-largest petrochemical port in the world, and nearby Texas ports handled 84% of PE exports that left the US on a ship, according to the US International Trade Commission. Eleven of the new PE plants starting up through 2019 are within 120 miles of Houston, and half are within 60 miles, so Port Houston expects its dominance to continue.

But industry players doubt Houston can handle the entire surge. Concerns range from a lack of empty container availability to fog shutdowns that cause hiccups and increase costs, even though the port has brought its container import/export movements into balance to allay those concerns. Producers say they want multiple export options to ensure some pellets are always moving while others may be held up.

Ports in Charleston, South Carolina; New Orleans; and Savannah, Georgia, have aggressively marketed themselves as alternatives to handle the overflow. Railroads that have seen once-solid coal business decline also see growth in moving pellets from producers to ports.

“We’re expecting it to be very healthy growth for a while,” Brian Hancock, chief marketing officer for Kansas City Southern, said at a November energy conference.

Charleston was an early player, enticing Chevron Phillips Chemical in 2011 to export pellets largely to Europe and West Africa from there, said Paul McClintock, senior vice president of sales and marketing for the South Carolina Ports Authority. Since then, INEOS, Sabic, Formosa Plastics, Westlake Chemical and Shintech signed on, with more in talks, he said. New Orleans did the same, followed by Savannah.

US PE EXPORTS SET TO GROW

Source: Platts Analytics' Bentek Energy
At least 6.6 million mt/year in US packaging capacity is coming online alongside new PE capacity from 2017 through 2019, according to companies that have disclosed capacities.

Of that, 57% is at or near the Houston Ship Channel, and more than half started up in 2017. McClintock said it is key for non-Houston ports to soothe concerns customers might have on getting shipments out quickly.

They want smooth truck-loading operations, and packaging facilities run by established companies they know. Frontier Logistics, which has multiple facilities along the ship channel, has a facility at Charleston serving just CP Chem, and will open a second more than five times larger in early 2019.

Katoen Natie, a global logistics provider, had 1.5 million mt/year of PE packaging capacity along the ship channel and 1.4 million mt/year in Mexico. The company opened another 800,000 mt/year of capacity in Baytown near Houston and Baton Rouge this year, and will add another 1 million mt/year at Baytown and 270,000 mt/year in Dallas in 2019.

Marc Levine, CEO of Plantgistix, which expanded its packaging operation this year near the ship channel as well, said the gas boom fueled the growth throughout the resin supply chain.

"Six to eight years ago, I didn’t know why I was staying in this business. Natural gas prices were high, US resin was unattractive on the global market. We were priced out. Then shale gas came along," he said.

— Kristen Hays

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