RESIN DISTRIBUTION
Trends & Outlook

Market Report

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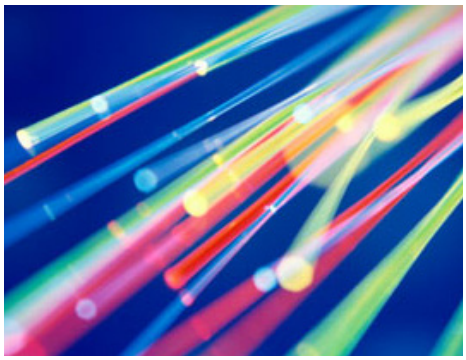

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2018

RESIN DISTRIBUTION TRENDS & OUTLOOK

MARKET REPORT

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Resin distribution: Overview

North American resin makers and compounders increasingly are viewing distribution as a strong and efficient way to get their materials to their customers.

And that trend is creating optimism in the ranks of resin distributors – even with some challenges facing the market.

In the big picture, combined sales of all types of PE, PP and solid PS via distribution and reselling in North America is on pace to be up 9.5 percent in 2018. That increase is being fueled by the additions of large amounts of PE capacity as producers take advantage of low-priced natural gas feedstock.

If the trend through July holds, it would mark the first time in three years that the combined PE/PP/PS total had increased. That aggregate total had slipped 2 percent in 2016 and almost 1 percent in 2017.

Most distribution executives recently contacted by *Plastics News* said that their firms' results were up — in dollars or volume in pounds or both — in the first half of 2018.

John Jorgensen III has seen all sides of the distribution market this year at Conventus Polymers LLC, the Parsippany, N.J.-based firm where he's co-owner. 2018 "has been a great year for us," he said. "We've seen high double-digit growth, and most of our end markets are up."

"But it's been a crazy year in terms of supply," Jorgensen added. "Polycarbonate has been tight, and nylon 6/6 is crazy right now. We've never had a case where we couldn't supply a customer, but we do a lot of application development, and in some cases we've had to give a secondary [material] option."

Among publicly held firms, the distribution unit of Avon Lake, Ohio-based PolyOne Corp. saw first-half sales growth of 11 percent, but it saw operating profit for the quarter decline by 5 percent.

POLYONE
DISTRIBUTION NUMBERS

Year	Distribution Sales	Distribution Operating Income	Distribution % of total sales
2004	$606.3	$17.8	28.0
2005	$679.2	$19.5	27.7
2006	$732.8	$19.2	27.9
2007	$744.3	$22.1	28.2
2008	$796.7	$28.1	29.1
2009	$625.1	$24.8	30.3
2010	$911.9	$42	34.8
2011	$966.5	$56	34.8
2012	$1,030.3	$66	34.4
2013	$1,075.2	$63.3	28.5
2014	$1,114.4	$68.2	29.0
2015	$1,030	$68	30.6
2016	$1,070	$68.2	36.5
2017	$1,150	$72.6	35.7

Source: PolyOne

"We had a strong first-half revenue gain due to growth in several key markets," PolyOne Distribution President Scott Horn said in an email. "While transportation and raw materials costs continue to affect the market, we continue to invest in commercial resources for the future.

"Raw material increases are driven by cyclical market dynamics, but we expect higher transportation costs to continue for the foreseeable future," he added.

At Nexeo Solutions of The Woodlands, Texas, plastic distribution sales were up 8 percent for the quarter ended March 31, while gross profit increased 3 percent. Officials credited higher selling prices for the sales boost, as the firm's plastics sales volume in pounds was down 4 percent for the quarter.

"Our general theme is that we're seeing growth in line with GDP as we focus on investments and speed and customer intimacy," said Shawn Williams, senior plastics vice president.

"Our business is up, and we have an aggressive growth plan," said Ed Holland, president and CEO of M. Holland Co. in Northbrook, Ill. "We're up double digits in pounds. One of the reasons we're doing well is because we've invested in people, technology, new products and acquisitions. Our new business development group is starting to produce."

Bamberger Polymers of Jericho, N.Y., has seen 12 percent volume growth in pounds, according to Mike Pignataro, North American sales vice president for the company.

"We're seeing slow and steady growth in the U.S. and Canada," he said. "There are a lot of good distributors out there, each with their own niche. We're all focused on what we do best and maintaining that business."

Sales volume is up around 6 percent at Osterman & Co. in Cheshire, Conn., according to Dave Dever, distribution sales vice president. The firm's major focus has been on prime grades of branded resins.

Kevin Chase, president of Chase Plastics Services Inc., said his Clarkston, Mich.-based firm has seen volume up substantially at rates he described as "high single-digit" and three times that of U.S. GDP growth.

"We're having a really good year," said John Moisson, president of Jamplast Inc. in Ellisville, Mo. "Pricing has been relatively stable, volume is good, and our customers have been doing well."

Big sellers and strong end markets

Among end markets and resin categories, Moisson said that Jamplast's sales of bio-based products are 20 percent ahead of last year's pace and that it's also seen growth in 3D printing and blends and alloys. On the bioplastics side, Jamplast has worked with bioresin maker NatureWorks for more than 15 years.

Health care, transportation and outdoor high-performance markets have led the way for PolyOne because of investments the firm has made in those areas, Horn said. In terms of materials,

PolyOne is seeing good growth across both engineering and commodity portfolios with slightly stronger demand for olefinics, he added.

At Bamberger, Pignataro cited industrial blow molding as "a big area for us" and added that PE stretch film is also doing well. Ed Holland said no single market has stood out for his firm this year but that it's seen growth in several of its main end markets, including flexible packaging and automotive.

Kevin Chase added that all areas have been strong for his firm, including automotive lightweighting. "Car builds are down, but companies are doing a better job of metal-to-plastic conversion," he said.

At Conventus, Jorgensen said that his firm's sales were up in oil and gas, building and construction, health care and electrical.

Jorgensen added that Conventus was doing more work with engineering resins and high-performance materials in areas of metal replacement.

High density polyethylene has provided growth at Osterman, according to Dever, with higher sales in caps and closures, consumer products and food packaging.

General Polymers Thermoplastic Materials LLC of Clarkston, Mich., has been strong in automotive, industrial and appliance so far in 2018, CEO Greg Boston said.

Williams at Nexeo cited health care, general industrial and electronics as areas of strength in the first half. Potential new products for his firm include compounds and materials for wire and cable.

Got resin?

Getting material to distribute has been a challenge at times in 2018. Uncertain supplies of resins have led to some anxious moments for distributors.

"A lot of materials are tight," Kevin Chase said. "We're seeing it in nylon 6/6 and polycarbonate and acetal. We're not seeing allocations, but tightness.

"Demand is up, but no [resin maker] has added capacity since before the recession," he added. "Their [return on investment] is just starting to get there."

When material supplies get tight, Chase said his firm "tries to work in the framework of our existing suppliers, but in some cases we have to satisfy customers and look to other options."

On the commodity side, the polypropylene market also has been tight.

"We can sell a lot more of it if we could get it," Ed Holland said. "It's still a challenge. We don't see any relief in polypropylene until 2020 or 2021."

"Customers look to us to solve their problems, but there have been times this year when it's been tough to be a distributor," added Grant John, president and CEO of PolySource LLC in Independence, Mo. "The situation in nylon 6/6 has been challenging. Not all applications can go to other materials."

Moisson at Jamplast agreed that availability of nylon 6/6 has been limited, and that although ABS has been available, "there's not tons of it floating around." Even some supplies of material imported from Asia have been snug, he added.

Someone take the wheel

Another big challenge facing resin distributors in 2018 has been a shortage of truck drivers.

"Logistics are a huge challenge," said Ed Holland. "Whether it's trucking or rail, we're seeing higher freight rates and a shortage of drivers, as well as tight supplies of rail cars because on increased [resin] volume on the Gulf Coast."

To address customer concerns, PolyOne has posted a two-page trucking industry fact sheet on its website. "In North America, there is ample documentation that drivers and trucks are in short supply and diesel costs are going up," PolyOne's Horn said.

According to the PolyOne fact sheet, the average age of a truck driver is 55, which is 10 years older than industries that pull from the same labor pool such as construction and manufacturing.

Some resin distributors are facing a shortage of truck drivers. PolyOne is addressing customer concerns online with a two-page trucking industry fact sheet on its website. File photo

At Chase, Kevin Chase said that his firm "used to be able to get a truck within 24 hours, but now it takes four or five days." He added that profit margins are being squeezed by higher transportation costs and higher wages for drivers, as well as by raw material cost and volatility.

In October, the American Trucking Association, a trade group based in Orlando, Fla., issued a report saying that the industry was on pace to be short 50,000 drivers by the end of last year.

"In addition to the sheer lack of drivers, fleets are also suffering from a lack of qualified drivers, which amplifies the effects of the shortage on carriers," ATA Chief Economist Bob Costello said in a news release. Costello detailed some causes of the shortage, including the aging driver population, lifestyle issues and regulatory challenges.

"We already see fleets raising pay and offering other incentives to attract drivers," he added. "Fleets are also doing more to improve the lifestyle and image of the truck driver." There are also policy changes, Costello said, such as reducing the driver age as part of a graduated licensing system or easing the transition for returning veterans that can make getting into the industry easier and help with the shortage.

Some major resin distributors have announced freight surcharges to cover higher shipping costs, while others are considering making that move.

"At times, we've needed a few extra days for delivery," said John at PolySource. "We have to do a good job of communicating [shipping] information to our customers because it doesn't look like there's going to be any near-term relief."

"There's pressure on the availability of bulk trucks and restrictions on how many hours drivers can drive, and that's led to higher shipping costs," added Dever at Osterman. "It's a really big topic for us."

Bamberger "can get trucks, but we're paying more than we ever have," according to logistics manager Ron Voegele. "We try to reserve them early, as last-minute shipments are very expensive and hard to cover."

He added that new regulations and enforcement of "seat time" for truck drivers are behind the rising costs. "The [trucking] industry is having a hard time finding young individuals interested in the occupation," Voegele said. "Every trucking company I talk to says the same thing: Good drivers are difficult to find."

Nexeo has its own private fleet of trucks and, as a result, has been less affected by shipping challenges than other companies have, according to Williams. But the firm still has seen its customers impacted by higher prices from commercial carriers, he added.

Moisson at Jamplast estimated that his firm's freight costs are up at least 20 percent this year. "Trucks are expensive and scarce," he said. "We need to plan accordingly."

Big builds

Nexeo and M. Holland both have expanded their physical presence in 2018 by opening major new distribution centers.

Nexeo Solutions has opened a major new resin distribution site in Montgomery, Ill. The firm now is operating a 158,000-square-foot facility in Montgomerry, Ill., outside of Chicago. The $13 million site is the largest in Nexeo's network and marks the first time that the firm has built a distribution facility "from the ground up," officials said in an email.

The Montgomery site employs about 20 and has double the warehousing and bulk processing capacity of Nexeo's previous location in Franklin Park, Ill., which has closed. The Montgomery location also has the space to quadruple production levels to support Nexeo's customers' future growth.

The new site makes use of 12,000 pallets, two high-speed pack-out lines, one manual pack-out line, four rail spurs with total capacity of 36 railcars, 14 loading docks and six new storage silos.

The facility also has an advanced box-filling automation system, pallet dispensing, upgraded blower technologies and two pack-out and blower stations, as well as an advanced shipping and receiving area for optimized truck and traffic flow.

Officials said that the new location will enable Nexeo to keep its on-time delivery rate near 99 percent, which they say the firm has accomplished with its own GPS-enabled private fleet of trucks.

"It's a modern facility that houses the latest supply chain technology with optimized truck and traffic flow, allowing us to service our customers faster than ever before," said Shawn Williams, the company's senior plastics vice president, in an email. "With double the warehousing and bulk processing capability than we previously had, we can offer our customers same-day and next-day service."

In Coal City, Ill., M. Holland Co. has occupied a new warehousing center. The move has allowed Northbrook, Ill.-based M. Holland to empty its longtime warehouse in Northlake, Ill. M. Holland will be the main client of the center, which is owned and operated by G&D Trucking/Hoffman Transportation.

The new 400,000-square-foot facility in Coal City provides paved access for nearly 800 rail cars and a fleet of bulk trucks. The site also is close to some of the largest intermodal yards in the world, allowing M. Holland to have access to all major U.S. ports for import and export opportunities, officials said in a news release.

Nexeo Solutions opened a distribution site in Illinois and made additions to its compounds and filaments line card. Photo courtesy of Nexeo Solutions

They added that with the move, M. Holland now expects an immediate and significant improvement in rail transit times. Officials previously said that the site is intended to provide resin to domestic customers, but could be used as a secondary export hub as well.

The new site also will enhance M. Holland's ability to provide best-in-class experiences to clients across North America and Latin America, officials said. The full scale of operations provided by the new site — including transportation modes, bulk transfer, and packaging — will create a national one-stop-shop for clients, according to Jordan Hoffman, vice president of G&D Trucking/ Hoffman Transportation.

G&D invested $20 million in the Coal City project, which is expected to employ 50 in its first year. Coal City is located about 60 miles southwest of Chicago and about 10 miles from G&D Hoffman's headquarters in Channahon, Ill. The firm built all of its own rail track for the Coal City site.

Coal City's location also allows rail traffic to avoid most of Chicago's rail grid, which can slow down deliveries. Officials previously said that avoiding Chicago rail traffic could reduce delivery times by 10-14 days.

Shipments from resin plants on the U.S. Gulf Coast — where large amounts of polyethylene resin capacity are being added — can reach Chicago in seven days.

Resin distributor Ravago Americas LLC is getting into the act, investing up to $36 million in Medina, Ohio, for a new, large distribution center.

The project cost will be $31 million to $36 million, estimated Ravago Americas President James Duffy in a phone interview. It will cover 500,000-600,000 square feet. The facility could create as many as 70 new jobs in Medina.

"We have a large presence in Ohio and our company is investing heavily in itself there," Duffy said. "We're breaking ground as we speak."

Duffy said his company has outgrown a distribution facility in Barberton, Ohio, and the time has come to consolidate. The company also has manufacturing and other operations in Ohio. Medina is about a 30 minute commute from Barberton.

Duffy said the new Medina facility will include pulverizing equipment to make rotational molding grades of plastic resin. The site will include 17-20 silos, railway sidings and boxing and bagging equipment. He predicts the facility will be finished in mid-2019.

The new center will be able to handle up to 100 rail cars at a time, according to a report in the Medina Gazette.

The Medina County Port Authority will issue up to $50 million in bonds to Ravago. Other possible incentives may include payroll tax credits and property tax abatement, said Bethany Dentler, executive director of the Medina County Economic Development Corp. Assistance may also be available from Jobs Ohio, she said in a phone interview.

Ravago examined other states and locations in Ohio before choosing Medina, Ravago Vice President of Operations Sean Williams noted in the local news report.

Poll: Supply chain spending set to increase

A recent poll conducted by research firm Petrochemical Update of London should do more to convince North American resin distributors that they're heading in the right direction. According to the poll of petrochemical industry professionals, at least 90 percent said their firms would be increasing their supply chain budgets over the next five years.

Tax reform and regulatory relief efforts under the current U.S. administration have fueled further petrochemical investments, Petrochemical Update said in a whitepaper accompanying the poll results. But challenges are also causing concern for the future of these projects and the supply chain. These include threats to trade, necessary technology improvements, infrastructure issues, and an ever-growing driver shortage.

The poll was given to U.S. supply chain executives of major downstream companies in June 2018. Those interviewed have jobs in procurement, logistics, plant management, projects, business development and maintenance.

In addition to the 90 percent seeing increases in supply chain spending, only 10 percent of those polled said supply chain budgets would stay the same. Not one person polled is expecting to see a decrease in supply chain spending.

General optimization of the supply chain, followed by time delays, and then increasing freight charges were the top reasons executives listed for a need to increase spending over the next five years, according to the poll. Other reasons budgets are increasing include a shortage of drivers, insufficient customer service, limited equipment supply in the U.S. Gulf, taxes, improvement projects, permits, and safety improvement.

The road ahead

Many distribution firms are addressing the future of the industry, even if they're doing so in different ways.

Nexeo is facing inflationary costs on lumber, pallets, cardboard, steel drums and pails, but it still expects "steady growth" for the rest of the year, according to Williams. The firm also plans to build "a more robust online presence" and is providing more access to shipping data and real-time inventory information to its sellers.

The image of plastics remains important to PolyOne, especially in light of recent challenges to single-use plastics and concerns over ocean plastic waste.

"Plastics are extremely valuable materials making important contributions in every industry," PolyOne's Horn said. "Further unlocking that value with more effective, universal recycling and awareness programs will entail collaboration among industry, consumers and infrastructure globally."

"I think one of the long-term trends we'll see is big petrochemical firms aligning with big distributors," said Moisson at Jamplast. "Then there will be a second tier [of distributors] aligned with smaller niche-type materials like bio-based resins or elastomers or acrylics to help rep smaller [material] suppliers that don't get attention from larger distributors."

At Bamberger, Pignataro said his firm won't be affected by being recently acquired by Plastiche SA, a Luxembourg firm controlled by the same family that controls materials giant Ravago Group. Ravago's businesses include resin distribution.

"We're still a separate entity with our own sales and management and financing," he said. "There's no intention to change what's worked. We're all excited about the future of the industry with the addition of branded distribution partners."

Conventus plans to "aggressively expand our product line for specialty products with our good value proposition," Jorgensen said. The firm has also added two sales reps in the last year and intends to add one or two more by the end of 2018.

Relationships are also a driver at Osterman.

"This is a relationship business," Dever said. "When my career is over, I want to look back and be proud that we've provided service while being competitive."

He added that Osterman is now working with its seventh sales training class. The firm has hired more than 30 sales reps from its first six classes.

General Polymers recently moved into a new, larger office space and plans to add four or five new sales reps this year, according to Kirtley. The firm has also had its materials approved by several new customers.

PolySource plans to hire two or three more sales reps this year and is looking for new materials to grow its geographic reach. "We continue to talk to new suppliers to find more materials that fit into our mission," John said.

Customer relations also remain a big area of focus for Chase and other distributors.

"You have to constantly drive value," Kevin Chase said. "I don't care if you're selling to your sister-in-law. Great companies are good at delivering value services." ■

Sponsor Spotlight | PolyOne Distribution

As the critical link between resin suppliers, OEMs and processors, PolyOne Distribution helps customers select the best material, offers design and manufacturing optimization, and streamlines their supply chain.

Distributing commodity, engineering and specialty thermoplastic and thermoset resins, its broad product portfolio includes materials and colorants from the world's leading polymer producers, just-in-time delivery from multiple stocking locations, product development help, manufacturing support, and supply chain optimization. Locations throughout North America, Latin America, and Asia serve the specialized needs of customers globally.

To help customers navigate to success, PolyOne Distribution brings more than materials to each project by relying on an experienced team dedicated to assisting with design, material selection, processing, manufacturing and supply chain challenges.

Together with its comprehensive portfolio of materials and on-time deliveries, PolyOne Distribution provides:

- On-site technical support and training
- Operational analyses
- Design support throughout product development
- Regulatory-compliant material support
- Global supply chain and logistics consulting

Contact PolyOne Distribution at +1 888-859-4539 or online at www.polyonedistribution.com.

Executive Spotlight | Scott Horn, Senior Vice President, President, PolyOne Distribution

Q: We continue to see organic growth across the sector today. What has allowed resin distribution to grow so much in North America in the last 10 years?

Rather than purchasing from a number of major resin suppliers, processors are looking for fewer supply partners to provide the entire breadth of polymers they need. Suppliers, for their part, are looking to reduce their involvement in less-than-railcar quantity sales, including removal of the packaging step. Suppliers of engineering thermoplastics are looking for a broader network to increase their market reach and share, and so distribution is an excellent vehicle for them. And in general, at most resin suppliers, there is now a clearer understanding of which customers can best be served by distributors and which ones are better served directly.

Q: What role have additional services played in this growth?

Along with the higher growth trend, we're seeing customers who want help with a host of additional services, including product design, material selection, working capital management, regulatory approvals and compliance, and design support. In fact, demand is ramping up for cradle-to-grave design services along with manufacturing process optimization. As a result, we and other distributors have begun adding resources to meet these needs. For example, at PolyOne Distribution, we have dedicated technical development engineers as well as design and engineering services up to and including part design and mold design. We're also regularly working with customers to manage working capital and navigate regulatory environments. And manufacturing process optimization, including mold trials, is a traditional part of our service offering. Perhaps one of the most effective strategies though has been our ability to connect the dots between OEMs and their molders.

Q: Where are the greatest areas of opportunity for growth for resin distributors?

Improving and enhancing the overall customer experience is one of the most significant opportunities for growth. To do this, distributors need to have a high level of technical understanding among their commercial teams so that they can better serve customers. A part of this stems from the drive to lightweighting and metal replacement among multiple industries, which requires more in-depth knowledge of polymers and alternatives. In addition, distributors who expand their footprint to be able to serve more customers locally will be able to leverage quick deliveries and responsive service as differentiators.

Q: Is there an end market or material that has stood out for PolyOne this year?

Healthcare probably stands out more than any other, while transportation and building and construction are close seconds. We're seeing strong performance in these markets, as well as the recreational consumer market.

Q: How have material supplies been over the last year? What can distributors do to meet their customers' needs when demand increases?

Nylon 6/6 and silicone are notoriously tight, which has been covered extensively by industry media. While PP remains snug in North America, other supplies are relatively stable barring the impact of any natural disasters. To help customers caught in any supply tightness, PolyOne has been able to help them select materials that will give them long term availability based on our experience and strong supply partners. We also have a robust forecasting process to ensure that our warehouse inventories are adequate to meet customer demand even if it fluctuates.

Scott Horn is senior vice president, president, PolyOne Distribution for PolyOne Corporation, the world's premier provider of specialty polymer materials, services and solutions. He is responsible for driving consistent, profitable growth for the copany's distribution business, while ensuring it maintains the broadest and most strategic portfolio of offerings and exceptional service levels for customers. Horn began his career with PolyOne (M.A. Hanna) in 1995 as vice president of sales and marketing for the distribution business. He has held general manager roles in various distribution regions and industries. He began his career in 1981 as a sales representative for Fiberchem, ascending through the company over the course of his career, eventually being named president.

Q: What are some of the challenges – such as material price increases and transportation costs – that distributors could face in the coming year?

Material price increases are the nature of the beast – they're always going to be volatile and challenging. We've all seen the effects of driver shortages and fuel costs, and we don't see any relief in the coming year. More than 70 percent of goods consumed in the U.S. are transported by truck, and the trucking industry has been experiencing a well-documented and steady driver shortage increase for over 15 years. The American Trucking Association estimates that trucking companies will have to hire 900,000 more drivers over the next ten years to meet increasing demand; however, they have struggled to attract new drivers at the same rate they are losing them. In fact, trucking companies have vehicles sitting idle because they can't find drivers. None of this bodes well for transportation costs, especially if the cost of diesel fuel continues to rise.

Q: There is a lot of talk about tariffs and the issues that this can present. How can PolyOne and other companies deal with the seeming uncertainty that comes with this issue?

Tariffs may affect distributors regarding the cost of upgrading or expanding new facilities, which are steel intensive activities, but we don't foresee significant impact on this front. In most cases, as a distributor, we source locally for each market we participate in, so we don't anticipate any effect from tariffs on polymers. For our customers, though, tariffs could mean less competitive pricing for molds and machinery. On the other hand, we may see an uptick in metal replacement activities, as steel prices are already on the rise.■

PARTNERSHIPS/M&A TRENDS

Trends in resin partnerships

Several resin distribution firms have taken recent steps to build up the line cards of materials that they offer to their customers.

New materials offerings from Nexeo Solutions include nylon compounds from Albis Plastics Corp., PVC compounds from Aurora Plastics and plastic filament for 3D printing from Polymaker Industrial.

The agreement with Albis covers compounds based on both prime and recycled grades of nylon 6 and 6/6 in the U.S. and Canada. These materials are marketed under the Altech and Altech Eco brand names and are made at Albis' compounding plant in Duncan, S.C.

Altech nylon 6 and 6/6 compounds are used in applications such as automotive, electrical and electronics, industrial, appliances and power tools. Altech Eco includes a range of filled and unfilled nylon 6/6 compounds based on high-quality post-industrial feedstock, which allows Albis to claim "near to prime" properties in the final product.

Albis is a unit of materials firm Albis Plastics GmbH of Hamburg, Germany, with North American headquarters in Duncan.

Nexeo also in January became national distributor for Aurora's line of PVC compounds. In a news release, plastics senior vice president Shawn Williams said that the addition of Aurora "aligns to our specialty growth strategy."

Streetsboro, Ohio-based Aurora is "a leading PVC compound producer that specializes in high-quality rigid, flexible and cellular foam PVC," he added. "This agreement emphasizes our commitment to bring a broader specialty mix of products to our customers from world-class producers."

Aurora, a unit of Chicago private equity firm Wind Point Partners, has made three acquisitions since mid-2017, most recently buying the assets of compounding firm JPI South of Pasadena, Texas, in May. Aurora makes compounds based on PVC and thermoplastic elastomers for a variety of markets.

In the filaments market, Nexeo has expanded its 3D printing portfolio with filaments specifically developed by Polymaker Industrial for industrial use. Shanghai-based Polymaker develops high-quality materials with enhanced strength and durability for industrial manufacturing, officials said.

Nexeo is now global distributor for three new types of Polymaker filaments. C515 is an advanced polycarbonate filament optimized for 3D printing providing superior printability combined with a low warping effect. Officials said the filament is ideal for industrial applications such as high-volume jigs and fixtures or sports equipment.

C515FR is a flame-retardant PC filament initially developed for the aerospace industry. It's suited for industrial applications such as drones and electronic housings, officials said. SU301 is a polyvinyl alcohol-based filament specifically developed as a support material for FFF printers. It's compatible with widely used 3D printing materials such as PLA, TPU, nylon and PETG. SU301 is also water-soluble and simplifies the post-printing process, officials said.

"Expanding our portfolio to include industrial-grade filaments from Polymaker Industrial gives our customers access to a wider range of filaments that solve new 3D printing challenges and meet the demands of manufacturers," Nexeo Europe/Middle East/Africa Vice President Paul Tayler said in a news release.

Polymaker Business Development Manager Wildrik van der Weiden added that his firm's industrial filaments "stand out because of their printability while also offering all the intrinsic material properties that engineers get with molding technology."

In a recent interview with *Plastics News*, Williams said that his firm's "whole value proposition is material solutions."

"We're focused on working side by side on product specifications with our customer so they can pick the right material for the right application," he added.

Nexeo is one of North America's largest distributors of plastics materials, distributing resins, compounds and concentrates for more than 20 suppliers.

At M. Holland Co. of Northbrook, Ill., the firm recently signed a distribution agreement with Owens Corning, a global leader in the glass fiber reinforced composite industry, to distribute the company's Xstrand products.

Xstrand are high-performance composite filaments for 3D printing, a growing market segment in which M. Holland is investing to support client needs, officials said. M. Holland will serve as master distributor for the products, managing a network of sub-distributors and directly distributing Xstrand filaments to clients in the U.S. and Mexico.

Xstrand employs proprietary fiber reinforcement technology developed within its global technical network including dedicated 3D printing laboratories in the U.S. and France. Xstrand filaments enable the production of 3D printed parts that are 50-250 percent stronger and stiffer, making them structurally superior to traditional 3D printed parts. In addition, Xstrand materials have good chemical and UV resistance. Officials said that this combination of performance makes the Xstrand product line suitable for industrial production and functional prototyping.

Nexeo offers three new types of Polymaker filaments. File photo

"We expect 3D printing to become an integral part of the global manufacturing infrastructure," M. Holland CEO Ed Holland said.

To support its 3D printing initiatives, M. Holland is investing in new 3D printing capabilities at its research and development center in Easton, Pa., and adding dedicated commercial and technical support resources.

M. Holland also announced in April that major compounder Teknor Apex Co. named the firm as its primary national distributor of two product lines of semi-aromatic nylon resins, Creamid and Duramid. The launch of these products expands on the companies' existing relationship and follows last year's announcement in which Teknor Apex named M. Holland its primary distributor for engineered plastics products in North America.

Creamid and Duramid are semi-aromatic, highly-filled nylons, characterized by enhanced surface aesthetics, low warpage, excellent flow, and dimensional stability. They are often referred to as metal-replacement nylons. Duramid offers additional high-performance features because of its superior flow, low warpage, and increased notched impact strength. Both products can be used for power tools, agriculture, furniture, electronics, military, and transportation applications.

"Given the resounding success of our partnership and shared values as long-standing, family-run businesses, expanding our relationship with M. Holland is a natural next step," Teknor Apex global ETP vice president Michael Roberts said.

In another recent new deal, M. Holland partnered with global TPE maker Elastron to provide an alternative source of thermoplastic vulcanizates (TPVs) and other compounded TPEs to the domestic wire and cable market.

Elastron entered a distribution agreement with M. Holland in 2017. The two companies have been qualifying Elastron materials in advance of Elastron's new compounding facility in Gainesville, Ga.

M. Holland's acquisition of T&T Marketing, a leading distributor to the wire and cable industry, accelerated this initiative, according to Elastron general manager Zev Gurion. "We look forward to bringing new, cost-effective TPE solutions to the wire and cable market, along with superior service from our new facility," he added.

Gurion also noted that the new facility would produce TPVs as well as styrenic block copolymers and thermoplastic polyolefin (TPO) compounds, all of which are materials widely used in wire and cable and automotive markets.

Tom Jordan - T&T co-founder, who has continued as managing director of the business unit – said that Elastron "has an excellent portfolio of existing wire and cable grades and a desire to partner with us in developing innovative new products for the market."

Parsippany, N.J.-based engineering resins distributor Conventus Polymers LLC recently reached an agreement to become an exclusive distributor for Kumho Polychem, a TPE maker based in Seoul, South Korea. Conventus began selling Kumho Polychem's line of Innoprene TPVs in North America on Aug. 20.

"This new offering will enable us to cost effectively compete in the TPE space which is one of the fastest-growing segments in the plastics industry," Conventus president John Jorgensen said.

Jorgensen said Kumho Polychem is a recognized supplier with high-quality products that are uniquely positioned in Conventus' portfolio of materials. As part of the deal, Conventus will provide all technical marketing, account management, application development, and customer service support.

Kumho Polychem's Innoprene TPV line includes 43 grades which are targeted for seal, gasket, cover, and hose applications for the automotive, industrial, electrical, sporting goods, and furniture markets. These materials will complement Conventus' line of TPEs which includes copolyester grades from LG Chem.

Amidst tight supply and extended lead times for TPUs this year, Jorgensen noted that Kumho Polychem's TPVs may be suitable as a replacement option in some applications. The TPV line meets automotive specifications and is used by some of the industry's leading Tier 1 suppliers and OEMs, he said.

Kumho Polychem operates a 26 million-pound capacity production plant in Yeosu, South Korea, and a research and development facility in Daejeon.

Plastics and specialty chemicals distributor Maroon Group of Avon, Ohio, also has added some materials to its lineup in recent months. In July, Maroon was appointed by the polyurethanes division of Huntsman Corp. to represent its isocyanates, prepolymers, and polyols in Ohio, Michigan, Southern Illinois, Southern Indiana, and Kentucky. This territory will align with current representation, from Maine to Miami, presently supported by Maroon's D.B. Becker Co. unit.

"The opportunity to expand our successful relationship with Huntsman Corporation is a significant event for Maroon," principal management vice president Dan Canavan III said. "Our partnership with Huntsman spans more than three decades of success through our D.B. Becker business, which has been recognized repeatedly as their distributor of the year."

Maroon's D.B. Becker unit also in June was contracted by Chromaflo Technologies of Ashtabula, Ohio, to distribute and represent its colorants and chemical dispersions in an expanded 21-state territory comprised of the New England, Mid-Atlantic, Southeast, and the Gulf Coast states.

Maroon principal management vice president Eric Post said that the Chromaflo partnership "further strengthens and compliments our product and service offering to the paints and coatings markets."

Also in June, Maroon's D.B. Becker unit was appointed by Evonik Corp. as the exclusive distributor of that firm's coating resins in the Northeastern U.S. region. D.B. Becker now distributes Degalan acrylic Resins, Degacryl bead polymers and Dynapol copolyesters to customers in the coatings, adhesive, inks, and other diverse markets from Maine to Virginia.

Maroon sales vice president William Nicholas said in a press release that his firm"has a long history of successfully distributing these resins in the Midwest and we thank Evonik for the opportunity to expand into the Northeast."

"We will be working closely with the Evonik team to ensure a seamless transition of existing business and projects," he added. ■

M&A trends and outlook

As many players in the resin distribution sector forge partnerships, the next logical step continues to be mergers and acquisitions.

As we head toward 2019, the plastics industry – including resin distributors – can anticipate a steady environment for merger and acquisition activity.

There has been strong activity so far in 2018 and there is little reason to expect that the current trends will not continue next year.

According to a survey by Deloitte LLP, executives overall remain generally optimistic that the number of M&A deals will increase over the next 12 months. Sixty-eight percent of corporate respondents and 76 percent of private equity respondents anticipate an uptick in the number of transactions across all industries.

Key challenges to M&A activity in 2018 have remained concerns about the economy, political and regulatory uncertainty, market volatility and valuations.

While the economy has been a positive, other factors, including tax reform and tariffs, are creating mild concerns.

Current trends

The plastics industry has witnessed an increase in overall plastics transactions involving hybrid buyers (strategic buyers owned by private equity firms), which increased 45 percent year-over-year.

According to Stout Risius Ross LLC, a Chicago-based valuation advisory, investment banking, dispute consulting and management consulting firm, global plastics industry M&A activity declined 7 percent year-over-year during the first half of 2018, driven primarily by fewer industrial plastics transactions and lower M&A volume for three of the key plastics processing segments: Injection molding, extrusion and resin/compounding.

However, a large portion of the decline occurred during the first quarter, which had 96 total transactions. The second quarter rebounded with 108 transactions, which is more in line with the previous 10 quarters, according to the firm.

Overall, the total deal count "is consistent with sustained levels and indicates an extension of the current M&A environment," PMCF Managing Director John Hart said.

When it comes to mergers and acquisitions, there have been plenty of attention-getting moves to turn heads throughout the resin distribution sector.

During the first three quarters of 2018, M&A activity remained steady, with private equity investments continuing to play a larger role in the market.

Avon Lake, Ohio-based PolyOne, which ranks as North America's largest compounder and concentrates maker and one of the region's largest resin distributors, has made six varied acquisitions since early 2017.

Most recently, PolyOne acquired IQAP Masterbatch Group SL, a privately owned specialty colorants and additives maker with customers throughout Europe.

Other deals include composites maker PlastiComp Inc. for an undisclosed price, and Orlando, Fla.-based Ravago Americas who earlier this month acquired I. Stern & Co., a distributor and reseller of commodity resins based in Clark, N.J. Officials said that I. Stern will be integrated into Ravago Americas' North American resale business.

I. Stern was founded in 1991 by Ira Stern and later acquired and operated by industry veterans Brian Miles and Todd Stein. Together, they built the company to more than $100 million in annual sales with an emphasis on styrenics, polypropylene and PET.

Ravago's deal for I. Stern was its first since December 2017, when it acquired compounder Polymer Technology & Services LLC of Murfreesboro, Tenn. However, the company quickly followed the I. Stern deal up with its acquisition of resin distributor Bolcof-Port Polymers of Azusa, Calif. — Ravago's 10th deal overall since 2016.

Bolcof-Port will become part of Ravago's Amco Polymers unit, officials said in a Sept. 13 news release. Bolcof-Port has been in operation since the 1960s and was one of the first resin distributors in Southern California, they added.

"We continue to make strategic acquisitions that add to the strength of our distribution companies," Ravago Holdings Americas President and CEO Jim Duffy said. "Bolcof's portfolio, market understanding and reputation, especially on the West Coast, will both complement and strengthen the Amco business."

The deal includes a facility in Azusa that will provide Amco with additional on-site rail storage/access, local warehousing, packaging and van/bulk truck delivery capabilities.

Bolcof-Port's sales coverage spans most of the Western U.S. but also includes key accounts along the East Coast and Canada. The firm distributes a range of commodity and engineering resins from 10 suppliers.

Ravago made six acquisitions in 2016, including Pacific Coast Chemical, Kemiropa, International Polymers, Industrial Resin Recycling, TH Hilson and Campi y Jove.

Earlier this year, Northbrook, Ill.-based resin distributor M. Holland Co. acquired T&T Marketing, a distributor of polymer resins and compounds to the wire and cable market.

Headquartered in Andover, Massachusetts, T&T has annual revenues of about $40 million and distributes throughout the United States and Canada.

In recent years, M. Holland has grown through acquisition, including deals for Able International Corp. and Tril Export Corp., both headquartered in San Juan, Puerto Rico.

At the time of the deals, Able and Tril sold about 50 million pounds a year of thermoplastic resins to more than 100 customers through distribution and agency relationships with leading global resin producers. Their products offered include a wide range of commodity and engineering resins.

The two companies are now named M. Holland Puerto Rico (MHPR) and M. Holland Export Services (MHES), servicing plastic processors in Puerto Rico, the Caribbean, and South and Central America.

In March, global resin distributor Bamberger Polymers Corp. was sold to Plastiche SA, a firm controlled by the same family that controls Ravago Group.

Luxembourg-based Ravago employs around 6,000 worldwide, distributing almost 9 billion pounds of resins and compounds to 40,000 customers. The firm also operates more than 1 billion pounds of annual compounding and recycling capacity. Since early 2016, Ravago has made eight distribution-related acquisitions.

Bamberger Polymers distributes for 10 material suppliers, including Westlake Chemical, Indorama Ventures, Ineos Olefins & Polymers USA and Total Petrochemicals. It also distributes generic resin grades under its own Bapolene and Bapolan brand names.

Another specialty chemicals distributor that has been active on the M&A front is Avon, Ohio-based Maroon Group LLC.

One of its most recent acquisitions is Cadence Chemical of Stamford, Conn.

In 2016, it also bought Hurst, Texas-based CNX Distribution for an undisclosed amount and acquired Darien, Conn.-based U.S. Chemicals.

During 2017, materials distributor Nexeo Solutions made international deals, including the acquisition of Mexican distribution firm Ultra Chem S de RL de CV.

Plastics-related products distributed by Mexico City-based Ultra Chem include polycarbonate, ABS and SAN resins, as well as plastic additives such as PVC stabilizers, antioxidants and foaming agents. The firm also distributes polyurethanes for flexible foam products, as well as a range of specialty chemicals.

That announcement came just weeks after Nexeo acquired part of the DSM NV business of German resin distributor K.D. Feddersen Norden AB.

Nexeo distributes resins, compounds and concentrates for more than 20 suppliers, including ExxonMobil Chemical and Lyondell-Basell Industries.

Proving the nature of the business, it was announced in September that Univar Inc. is acquiring Nexeo Solutions Inc. for $2 billion. The company said it will be reviewing Nexeo's plastic resin business for a possible sale.

Outlook

Consolidation in the resin distribution sector has slowed, and financial professionals don't expect a significant shift in M&A activity in the coming year.

The business climate will remain positive for acquisitions and companies seeking to grow through that avenue will still have prospects to consider.

Factors remaining in place for 2019 include a good U.S. economy, available financing, private equity interest and a demographic of older owners of smaller companies. Private equity investments will continue to play a larger role in the market.

Our expectation is that activity likely will continue, but if you have an eye on the market, watch the world stage, which could impact M&A. This could include touchy situations in North and South Korea, China and Russia and with tariffs.

Key challenges for M&A activity would be a significant increase in interest rates or a slowing of the economy. However, we don't anticipate any general scenarios that curtail the current trends in M&A activity over the next six to 12 months. ■

Executive Spotlight | Peter Nutley, Vice President of Operations, M. Holland

Q: What are some of the trends we are seeing today in supply chain management for resin distribution?

A: We are seeing the effects of driver shortages and trucking capacity problems. The capacity issues are the result of driver shortages. As a result, we are seeing an impact on freight costs. Additionally, we are seeing expansion in the development of distribution centers. We have seen over the last year significant investment in distribution center networks to prepare for the new scale of polyethylene production and overall polymer production.

There is a lot of development happening in Houston and other export market locations. One of our partners here in Chicagoland recently completed a 400,000-square-foot distribution center expansion and some other resin distributors recently completed similar expansions in the U.S. market. We are seeing a lot of investment in distribution centers.

Q: How has supply chain management contributed to the growth of the resin distribution sector over the last five to 10 years?

A: The expansions we have mentioned are providing the support for the growth. Distribution, as it grows, requires more and more resources. These are being built in advance of the capacity coming on line. There will be capacity and space to grow and resources to tap into.

Q: How can supply chain management help create additional growth opportunity for resin distributors?

A: Certainly it can expand geographical reach for distributors. With more distribution centers, you can reach more customers. By having more available resources, we can take on more complexity in our supply chains. Where we benefit is by being able to handle our customers' complexities and our producers' complexities.

Q: When it comes to supply chain management, what are some of the challenges that distributors could face in the coming year?

A: There is an increase in costs, not only freight costs but also in warehousing costs, and this is particularly true in certain regions of the U.S. This can be a challenge, especially if we can't better manage and optimize our supply chains to compensate for cost increases.

While there has been an expansion of distribution centers in advance of the polyethylene capacity increase, there still is concern that there is enough expansion to handle the new production. Additionally, there is concern about supply chain congestion causing delays in certain regions.

Q: Where do you see the biggest areas of opportunity?

A: I think that the thing that resin distributors can do is to bring more efficiency to their supply chain. They can implement technology to help their supply chains run more efficiently. They also can educate all of the partners in their supply chain, from the producer all the way to the end-use customer, on all of the complexities and challenges.

As vice president of operations, Peter Nutley oversees the transportation, warehousing, client experience, and information technology departments at M. Holland. He is an executive sponsor of enterprise resource planning initiatives and a member of the Executive Leadership Team. Nutley joined M. Holland in 2008 as a product manager from Ashland Distribution. Prior to that, he worked at Performance Polymers. Pete, his wife, Martine, and son live in Spring Grove, Ill. He enjoys running and music.

Q: How can trade agreements and tariffs impact supply chain management for the resin distribution sector?

A: Yes, it certainly can. It has and it certainly can continue to have an impact. The major impact of the China tariffs implemented on Aug. 23 were that materials destined for export all of a sudden weren't leaving the US. Distribution centers were full of material. Tariffs could create a stutter effect in our supply chain. The supply chains work best when there is constant flow through them. Tariffs can create a disruption and make things run in a herky-jerky manner and cause our supply chains to be inefficient. This could create space constraints for warehousing and packaging constraints to get materials into packaging lines. It also could create problems in rail storage as well as rail transit and congest markets.

Q: How will oil and resin prices impact the resin distribution sector in the coming year?

A: I believe oil and gas certainly could play into fuel costs. If prices continue to go up, we could see increases in fuel surcharges and line haul costs from our transportation providers. Specifically as it relates to polymer, instability in global pricing could contribute to inefficiency in supply chains with an on and off export strategy creating a herky-jerky motion and not letting them run smoothly.

Q: Overall, what is your outlook for the resin distribution sector in 2019?

A: I think overall, speaking not only for M. Holland but for the U.S. distribution base, we are very optimistic that our businesses are going to grow. There is plenty of business in front of us. We are looking at doubling the business over the next five years and the ability to achieve that is very real. ■

RESIN SALES TRENDS

Resin sales trends

Most U.S./Canadian commodity resins saw sales growth in distribution and reselling channels in the first seven months of 2018.

High density polyethylene was the big winner in the seven-month period, with sales to distribution up almost 52 percent vs. the same period in 2017, according to the American Chemistry Council. HDPE sales via reselling were up more than 6 percent. Those sectors accounted for almost 17 percent of all domestic HDPE sales for the seven months.

LDPE and LLDPE posted gains via reselling in that period but saw distribution sales drop. LDPE reselling sales were up 10 percent, with LLDPE up almost 30 percent. Distribution sales, however, dipped 12 percent for LDPE and almost 1 percent for LLDPE.

Distribution/reselling accounted for more than 16 percent of domestic LDPE sales and more than 17 percent of domestic LLDPE sales for the seven months.

Market watchers notched up the HDPE gains and the gains in LDPE and LLDPE reselling to the massive amounts of PE capacity that have been added in North America in recent years as new areas of shale gas and oil feedstocks have been developed.

North American PP sales – including Mexico - through reselling surprisingly were down more than 11 percent for the period, with sales of that material via distribution being flat. Distribution/reselling accounted for more than 18 percent of domestic PP sales for the period.

U.S./Canadian sales of solid PS though distribution and reselling were up 7 percent in the first seven months of 2018. That sector accounted for more than 10 percent of regional PS sales during that period.

Looking over the previous two years in the U.S. and Canada, sales of HDPE through distribution had slipped 8.5 percent in 2017 after growing almost two percent

HDPE DISTRIBUTION

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2005	477.6		2.9
2006	581.9	+21.8	3.3
2007	635.4	+9.3	3.5
2008	609.5	-4.1	3.6
2009	595.3	-2.3	3.5
2010	741.8	+24.5	4.4
2011	907.5	+22.4	5.3
2012	910.0	+0.3	5.2
2013	876.5	-3.7	4.9
2014	884.9	+0.9	5.0
2015	930.4	+5.1	6.3
2016	947.6	+1.8	6.5
2017	867.5	-8.5	5.7

Projected 2018 sales: 1.29 billion pounds

Source: American Chemistry Council

HDPE RESELLERS

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2005	1.48		8.9
2006	1.70	+14.9	9.7
2007	1.62	-4.7	8.8
2008	1.53	-5.6	3.6
2009	1.30	-15.0	7.6
2010	1.09	-16.2	6.5
2011	1.17	+7.3	6.8
2012	1.25	+6.8	7.1
2013	1.22	-2.4	6.9
2014	1.19	-2.5	6.8
2015	1.35	+10.5	9.2
2016	1.31	-2.9	8.9
2017	1.36	+4.2	8.9

Projected 2018 sales: 1.44 billion pounds

Source: American Chemistry Council

LDPE RESELLERS

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2005	778.7		9.9
2006	900.2	+15.7	11.4
2007	834.1	-7.3	10.4
2008	778.7	-6.7	10.9
2009	640.8	-17.7	9.6
2010	593.4	-7.3	8.7
2011	658.0	+11.0	9.8
2012	593.8	-9.9	8.7
2013	589.1	-0.7	8.5
2014	533.8	-9.5	7.7
2015	486.8	-8.2	9.1
2016	506.6	+4.1	9.6
2017	478.1	-5.7	9.2

Projected 2018 sales: 566 million pounds

Source: American Chemistry Council

LDPE DISTRIBUTION

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2005	226.8		2.9
2006	255.5	+12.8	3.2
2007	256.3	+0.4	3.2
2008	255.7	-0.4	3.6
2009	212.1	-16.9	3.2
2010	294.0	+38.7	4.3
2011	247.9	-16.0	3.7
2012	374.5	+48.6	5.5
2013	344.7	-8.0	5.0
2014	373.8	+8.4	5.4
2015	433.5	+16.2	8.1
2016	345.4	-20.3	6.5
2017	321.8	-6.9	6.2

Projected 2018 sales: 313 million pounds

Source: American Chemistry Council

in 2016. HDPE sales via reselling saw the opposite trend, growing more than four percent in 2017 after sliding almost three percent in 2016.

The HDPE distribution/reselling domestic market share was almost 15 percent in 2017, down from almost 15.5 percent in 2016.

For LDPE, distribution sales grew more than six percent in 2017 after being up 6.5 percent in 2016. LDPE reselling sales dipped almost six percent in 2017, reversing a gain of four percent in 2016. The LDPE distribution/reselling domestic market share was more than 15 percent in 2017, down from more than 16 percent in 2016.

In LLDPE, distribution sales surged 13 percent in 2017 after having declined 10 percent in 2016. LLDPE reselling sales were down four percent in 2017, cooling off after a gain of more than six percent in 2016. The LLDPE distribution/reselling domestic market share was more than 15 percent in 2017, down from almost 15.5 percent in 2016.

The North American PP market – including Mexico – recorded distribution sales growth of almost four percent in 2017 after logging a loss of almost three percent in 2016. PP reselling sales were down more than five percent in 2017 after having surged almost 18 percent in 2016. The PP distribution/reselling domestic market share was almost 19.5 percent in 2017, down slightly from an even 20 percent in 2016.

PS in the U.S. and Canada had challenging distribution/reselling sales results in both 2017 and 2016. Sales into that sector were down almost seven percent in 2017 after sliding almost four percent in 2016.

The PS distribution/reselling domestic market share was just under 10 percent in 2017 after being just over 10 percent in 2016. ■

SOLID PS DISTRIBUTION /RESELLERS

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2015	450.1		10.3
2016	433.1	-3.8	10.1
2017	404.3	-6.7	9.7

Projected 2018 sales: 422 m billion pounds

Source: American Chemistry Council

LLDPE RESELLERS

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2005	1.07		8.9
2006	1.32	+23.4	10.5
2007	1.31	-0.8	9.8
2008	1.25	-4.6	10.1
2009	1.14	-8.8	8.8
2010	1.07	-6.1	7.9
2011	1.11	+3.7	8.2
2012	1.12	+0.9	8.4
2013	1.09	-2.7	7.9
2014	1.10	+0.9	6.7
2015	1.04	-6.3	9.3
2016	1.10	+6.2	9.9
2017	1.06	-4.1	9.2

Projected 2018 sales: 1.42 billion pounds

Source: American Chemistry Council

LLDPE DISTRIBUTION

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2005	502.1		4.2
2006	532.2	+6.0	4.2
2007	507.4	+4.7	3.8
2008	464.6	-8.5	3.7
2009	426.8	-8.2	3.3
2010	455.0	+6.8	3.4
2011	621.0	+38.7	4.6
2012	675.9	+8.7	5.0
2013	737.0	-9.2	5.3
2014	919.6	+24.7	6.7
2015	680.5	-25.1	6.1
2016	610.5	-10.3	5.5
2017	690.3	+13.1	5.9

Projected 2018 sales: 690 million pounds

Source: American Chemistry Council

PP RESELLERS

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2006	2.06		11.2
2007	1.83	-11.2	9.5
2008	1.78	-2.7	10.3
2009	1.56	-12.4	9.3
2010	1.65	+5.8	9.6
2011	1.62	-1.8	9.9
2012	1.74	+7.4	10.5
2013	1.49	-14.4	9.1
2014	1.27	-14.8	7.8
2015	1.33	+4.5	7.9
2016	1.56	+17.6	9.5
2017	1.48	-5.4	9.2

Projected 2018 sales: 1.42 billion pounds

Source: American Chemistry Council

PP DISTRIBUTION

Year	Sales (Billions of pounds)	% Change	% of US/ Canadian sales
2006	1.27		6.9
2007	1.21	-4.7	6.3
2008	102	-15.7	5.9
2009	0.91	-10.8	5.4
2010	1.21	+33.0	7.0
2011	1.23	+1.7	7.5
2012	1.34	+8.9	8.1
2013	1.44	+7.5	8.8
2014	1.56	+8.3	9.5
2015	1.77	+14.0	10.5
2016	1.73	-2.3	10.5
2017	1.79	+3.7	10.6

Projected 2018 sales: 1.75 billion pounds

Source: American Chemistry Council

Resin production

Looking toward 2019, some key trends from the first half of 2018 could serve as bellwethers for the coming year.

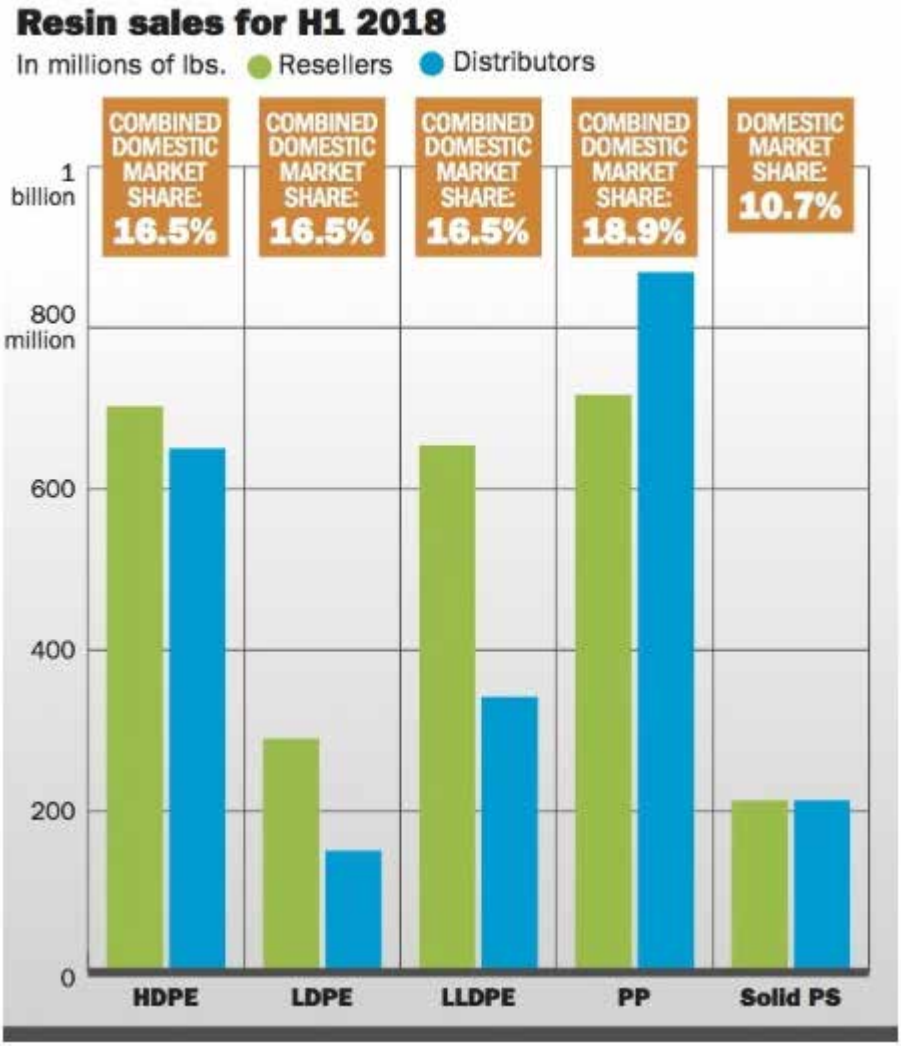
According to the American Chemistry Council, exports are playing a key roll in the growth of the HDPE and LLDPE markets.

LLDPE exports were up an astonishing 60.2 percent and HDPE exports leaping 18.9 percent.

Among major HDPE markets, sales into gas pipe were up 23 percent, with water pipe up 16 percent for the half. In end markets for LLDPE, sales of the material into shipping sacks were up 10 percent.

North America has added more than 6 billion pounds of annual PE production capacity since mid-2016 through major expansions from Nova Chemicals Corp., Dow Chemical Co., ExxonMobil Chemical Co. and Chevron Phillips Chemical. In total, North American PE production capacity is expected to add 26 billion pounds between 2017 and 2022.

The discovery of newfound supplies of shale-based natural gas in the region in the last decade have made these expansions possible. Most of this new capacity has been in the form of HDPE and LLDPE.



Source: American Chemistry Council

U.S. PE exports "can ramp up very quickly when world crude oil prices rise as they did in the first half of 2018 compared to the same months in 2017," said Phil Karig, managing director of the Mathelin Bay Associates LLC consulting firm in St. Louis.

"Crude oil prices were up over 30 percent year over year, while U.S. natural gas prices were mostly down during the same time period," he added. "As a result, many foreign PE buyers found U.S. PE prices attractive, while U.S. PE producers had less reason to lower domestic prices, even in the face of new production capacity."

Esteban Sagel, principal of the Chemical & Polymer Market Consultants consulting firm in Houston, said that "looking at PE, the domestic growth rates would be reflective of a strong domestic market, which I believe is the case."

"The economy is improving, employment is up and confidence is high," he added. "Growth in pipe in HDPE is understandable, as we work in a lot of shale-related infrastructure."

Karig said that the PP market "was very much a mirror image of the PE market in the first half of 2018 as it has been for most of the last few years."

PP producers "found themselves suffering from elevated feedstock costs and limited feedstock supply," he explained, "while foreign producers stand ready to ship PP to the U.S. whenever U.S. producers attempt to recover their cost increases or try to increase their margins." ■

Q: What's allowed resin distribution to grow so much in North America in the last 10 years?

A: I think it is a matter of a refocus from the major suppliers. That is different for the commodity materials vs. the engineered resins. The same changes affect both, it is just that the amount of pounds that are involved with each one is dictated by the resources that are available to them. Everybody is trying to operate leaner and there may be less technical resources available from the supplier for what I will call the "non-major customers." Therefore, distribution is picking up the slack in that. Distribution is growing up as well. They are getting better and more focused. Suppliers are relying on that more and more as time goes on. The challenge that you have with that is that some of the big box distributors – the people who are doing more than $1 billion in sales – are starting to manage their businesses in some ways in a similar fashion to the suppliers. They are making cutbacks as well. They are managing their businesses not necessarily to grow, but to maximize their profits. It is a business lifecycle. You have a period of growth and then you plateau out. You want that plateau to be as short as possible. The trend has been to grow quickly through acquisition or to eliminate competition.

Q: What role have additional services played in this growth?

A: Attention to detail and technical service are key. A lot of it also has to do with empowering your people to make decisions on their own. It makes them better commercial people in the industry. This is preferable to having to always go back to your sales manager to make a simple decision.

Q: Where are the greatest areas of opportunity for growth for resin distributors?

A: I'd say that it is the small- or medium-sized distributors like us. I'd also say it is more regional. Size-wise, we'd be considered a regional player. Geographically, it is a national footprint, including Canada and Mexico. Ten years from now, there will still be regional guys. They will maximize the profitability that they can take out of the business as an ownership group. Our plan is a national business plan.

Q: You mentioned Canada and Mexico. Do you see trade issues becoming an issue?

A: Really, it is the ebb and flow of politics. Mexico is based on financial instability for distribution. It is financial instability in collections of privately held molding groups. That is the biggest challenge in Mexico. Canada and the U.S. are close enough. In Mexico, it is more about the financial risk. If it is a multi-national company that also is set up in the U.S., there is no problem from a credit term standpoint as long as they check out. If things go south with an account in Mexico, you can have trouble collecting.

Q: Where is investment happening today on the distribution side?

A: For the big companies, it is computers and systems and gadgetry. For the medium and smaller players, today it is still quick reaction time. The same thing that has happened in the molding operation is that you have had consolidation, but there are always new molders popping up. Someone gets displaced in a molding operation and they go out and open a new molding operation. We see the same thing. Part of it is the American spirit. People want to be their own boss. For every molder that is consolidated, you are going to have another one pop up. That is accurate today and it was accurate 20 years ago.

Greg Boston is CEO and co-founder of General Polymers. He worked for more than a decade for the original GP, starting in 1987. He also worked for materials firm EMS-Grivory and then spent about a decade with compounder Ashai Kasei Plastics North America. Boston also was commercial development manager for Plastics Plus Inc. In 2016, he teamed up with Michael Kirtley to launch the new General Polymers in Clarkston, Mich. He is a graduate of Ohio State University and Franklin University.

Q: Will we be seeing more acquisitions in the distribution market?

A: Yes. Bolcof, which quite frankly few people in this area know, was acquired by Ravago. What is going to come out of that, I am assuming, is that you could see a couple of guys peel off and they may start up their own regional distributor.

Q: What are some of the challenges that distributors could face in the coming year?

A: Remembering to be humble and that it still is a person-to-person business when it comes to sales. The basic fundamentals of listening to your customers, respecting your suppliers and taking care of your commercial staff remain important.

Q: There is a lot of new PE capacity coming online. How is this impacting distribution?

A: I think the Nexeos and M. Hollands look at that business and see the volume and pounds and they see dollar signs. I don't. Our business is focused on value-added and compounded products and engineered resins vs. being commodity driven.

Q: How will oil and resin prices impact the distribution sector in the coming year?

A: Just as it does with the suppliers, it impacts your cost structure top to bottom, depending on what is going on in the market place. You have to be educated and know what is going on in the market. You also have to educate your customers and let them know what is going on in the market, both good and bad. If you do this, they will trust you and work with you and they will provide you with opportunities.

Q: What is your outlook for the resin distribution sector over the coming year?

A: We have an overall business plan and I update it every year for course correction. The distribution market in North America, give or take, is $10 billion. About $6 billion of that business goes through five big box guys. The other $4 billion is up for grabs for the rest of the industry. The market from a distribution standpoint is still in a growth phase. From our standpoint, we are focusing on the engineered side and the compounded products vs. rail cars of polyethylene and polystyrene. It is still growing faster than the rest of the distribution industry. I still see distribution as a growth sector. With all of the polyethylene coming on line, I see the big companies focusing on that. When you focus on one area, you take it away from something else. Everyone says they want to focus on engineered resins because it is a tag line. The action says something else. We also are seeing acquisitions that are to get bigger and to eliminate competition and not necessarily to strengthen the business. It is almost like they are out to weaken the competition. That isn't a positive thing for the industry and that is the niche we are going after. Another key is to manage the fundamentals of your business. Don't overextend yourself. We are going to go into another recession. It is cyclical and we might be facing a shift in 2020 or 2021. ■

Taxes & tariffs: Current trends

Taxes and tariffs have the attention of North American resin distributors.

Although many distribution executives said it was too soon to measure the full impact of changes in U.S. tax policy and of tariffs on imported and exported goods, they already were seeing effects in some areas.

First, the tax change lowered the effective corporate tax rate paid by many businesses.

“The tax change should be generally positive for most manufacturers,” said Grant John, president and CEO of PolySource in Independence, Mo. At General Polymers in Clarkston, Mich., CEO Greg Boston said that the tax changes should impact distribution in a positive way because of “overall support for business from the government.”

The tax situation is helping Osterman's customers buy new equipment, according to distribution sales vice president Dave Dever.

Kevin Chase – president of Chase Plastics in Clarkston, Mich. - was bullish on the tax cuts, saying they've allowed his firm to double its 401k match to employees and to give raises and bonuses as well.

“Any time you can take money out of the hands of the government and put it into the hands of free enterprise, that’s a good thing,” Chase said. “We’re seeing a Trump bump out there.”

Changes on the tax side are also helping customers at Jamplast Inc. in Ellisville, Mo.

“After going through the recession and then being so cautious and conservative, we're finally seeing good optimism and expansion with people buying new machines,” president John Moisson said.

Customers at M. Holland Co. in Northbrook, Ill., are also buying new equipment, president and CEO Ed Holland said, but he added that the tariffs "have multiple issues and none of them are good."

“They’ve created uncertainty about investing in business,” Ed Holland said. “Steel affects auto and supply chains — 20 percent of the cost of a new plant is steel. And our company and many others have worked to set up business with Canada and Mexico.”

At PolySource, John said that tariffs “have been more manageable and more expected, but now we might see some surprises that lead us to change our strategy." Mike Kirtley, president and chief operating officer for General Polymers, added that tariffs could impact companies on the steel side, possibly leading them to look at existing buildings rather than build new ones.

Dever at Osterman said that the new tariffs might lead the firm to do more volume in Central and South America instead of Asia. Tariffs might challenge traditional areas but could help Jamplast's sales on the bioplastics side, according to Moisson.

That point was driven home to him recently, Moisson said, when

he and his wife were offered paper straws instead of plastic ones at a local restaurant.

Other market watchers are more concerned about the potential impact of retaliatory Chinese tariffs, including ones of 25 percent that went into effect for high density and linear low density polyethylene on Aug. 23. U.S. firms have added massive amounts of capacity for those materials in recent years in order to utilize low-priced shale gas feedstock in the region.

At a Congressional hearing Aug. 20, industry officials argued that the United States' low-cost shale gas give American plastics producers a global competitive advantage, and they worry that a trade war will cut their access to China's growing market.

"These tariffs will close off China's market to U.S. exports just when our industry was ready to supply China's large and growing demand for chemicals," Ed Brzytwa, ACC's director of international trade, said at the hearing. "Trade flows between the U.S. and China will contract as tariffs are imposed on each side."

The Washington-based association argued that while it supports action to change China's trading practices, it said the sheer increase in the volume of goods covered would have a "potentially irreparable impact" on chemical supply chains.

The tariffs will force price increases on raw materials that will make U.S. firms less competitive globally against firms in countries that don't have those tariffs for inputs from China, ACC said.

"Supply chains are not plug and play. They cannot be easily reconfigured to meet the whims of U.S. trade policy," Brzytwa said. "Forcing companies to reconfigure their supply chains would threaten the viability of their businesses."

The U.S. resin sector has a trade surplus with China, in contrast with other segments of the plastic sector, which heightens its concerns about losing access to China.

At the MTS Logistics consulting firm in New York, executive M. Can Fidan said in a recent blog post that despite higher volumes being exported at the beginning of 2018, the ongoing trade war between the U.S. and China has started reducing demand for U.S. polyethylene exports.

These tariffs "have shook the shipping industry," Fidan said. U.S. tariffs of 25 percent on over $16.5 billion worth of plastic final goods imported into the U.S. from China also will negatively affect demand for U.S. polyethylene in China, he added.

"Unfortunately for the U.S., alternative markets are mostly much smaller than China," Fidan said. "Additionally, those markets do not have as many sophisticated buyers as China, so U.S.-grade product may not be a good fit for them."

"If U.S. producers don't reduce prices, and the U.S.-China trade war continues, the Asian market may further slow down without China's huge capacity fueling demand."

As much as 20 billion pounds of new U.S. PE capacity could be affected by the tariffs, according to a recent report from market data firm S&P Global Inc. of New York. HDPE and LLDPE account for almost 80 percent of all new U.S. PE capacity, the report said.

The first wave of Chinese tariffs – put in place earlier this year - targeted only LDPE, which makes up a smaller amount of the new capacity. The report added that "at least some US (PE) producers are likely to feel the pinch, after building plants that saw Asia's largest countries as their main export targets."

A recent report from the ICIS consulting firm in London said that the tariffs "are the first step in a trade war that could turn into a global polyethylene price war as the wave of new US production is sent to new markets, likely Europe."

The report quoted International eChem chairman Paul Hodges saying that "the main hit from a trade war is going to be the US PE expansions – clearly it is being targeted so the opportunity to export to China is sharply reduced."

"But this won't just be a U.S. problem because they will still want to move their product – it has got to come to Europe as there is no surplus demand in Asia, the Middle East or Latin America," he added.

Hodges also said that this first wave of tariffs "was a wake-up call to those who thought globalization was going to continue as it did in the past…We have reached a tipping point where we have to expect that trade wars are more rather than less likely."

"Trade expands opportunities and the overall economy," he added. "There may be some short-term successes going into a trade war but ultimately the U.S. economy will lose." ■

Economic trends & outlook

As we approach 2019, resin distributors are keeping a watchful eye on the economy for any potential shifts in the business climate.

According to *Plastics News* Economics Editor Bill Wood, entering the fourth quarter of 2018, the U.S. economy was exhibiting the strongest growth since the recovery started over nine years ago.

"There is now a risk the economy is growing at a faster pace than it can sustain over the long term," he said. "If this is the case, then we may be approaching the end of the expansionary phase of the cycle and the start of the next recession."

Historically, the late expansionary phases of business cycles have been characterized by robust economic growth, tightening labor markets, longer delivery times for suppliers, accelerating gains in wages and inflation, tightening monetary policy, and rising interest rates. According to Wood, all of these conditions exist at the present time.

The government slashed corporate and personal income taxes in January in a $1.5 trillion package and the U.S. Congress passed a $1.3 trillion spending bill in March.

"In an effort to garner the political credit for boosting GDP growth from 2 percent per year to more than 3 percent per year, the Trump administration cut taxes and increased government spending this year," Wood said. "This has not only stimulated faster economic growth, it has also resulted in higher budget deficits for the federal government. Proponents of this approach to fiscal policy can take credit for the fact that the economy is creating jobs at a much faster pace than the labor force is growing, but this may yet turn out to be too much of a good thing."

Rising employment figures are usually good for the economy, until they rise too quickly.

"Presently, there is a high number of open job positions in many industries, the quit rate for workers is rising, and the number of layoffs is at a cyclical low point," Wood explained. "If these trends are pushed too far past the 'full employment' level, then the rate of inflation increases rapidly.

Recent data suggest that wage growth is accelerating. Wages for private-sector workers are now rising at a pace of 3 percent when compared with a year ago. This is the strongest growth in over 10 years.

"The problem stems from the fact that this is also much stronger then the gains in productivity," according to Wood. "When wages rise faster than productivity, it squeezes profit margins for businesses. To make up for, businesses raise prices. The ultimate result of higher wages and higher prices is higher inflation."

In order to keep a lid on inflation, the Federal Reserve will raise interest rates. Currently, the feds fund rate is about 2 percent, but in order to keep the rate of inflation at its 2 percent target level, interest rates will likely need to exceed 3 percent.

According to Wood, another indicator of mounting inflationary pressures is the trend in asset prices. The word euphoria is too strong to describe the current situation, but investors have pushed up asset prices for things like stocks and commercial real estate to the high side of their historic ranges.

"We are not in a bubble phase (that is why the word euphoria is not quite appropriate), but the current trajectory in some asset prices has us heading in that direction," he said. "So far, these gains are mostly due to strong economic fundamentals in the US, but large gains at this stage in a recovery also reflect strong confidence."

The confidence levels for both business owners and consumers are also at the high side of their historic ranges. Usually, confidence level indicators are coincident indicators, which mean they reflect current economic conditions.

"But as we witnessed just prior to the last recession, confidence levels that get too high can impact economic decisions in a negative way," Wood said.

The subsequent downturn in the economy caused by this irrational exuberance which Wood said was so painful it became an impediment during the early years of the current recovery.

"Our collective confidence levels went from way too high just before the recession to way too low in the immediate aftermath," he noted.

The high levels of investor confidence are also reflected in the bond market, as credit spreads are near the low end of their historic ranges. The difference in yields between 10-year Treasury Notes and both junk bonds and emerging market bonds is well-below the long-run average of about 500 basis points.

This indicates investors in the bond markets are more willing to take on risk which means there is less fear of default in the coming months.

"You have no doubt heard many times in recent years that expansions don't die of old age," Wood explained. "They die because high levels of confidence turn into overconfidence, and overconfidence causes mistakes. Investors start to speculate excessively, real estate developers overbuild, businesses take on too much debt, and households overextend themselves. This process has preceded every recession in recent decades, and it will likely be the process that precedes the next recession."

The U.S. economy is not showing signs of overconfidence yet, but there is cause for concern if the growth rate in real GDP gets too high and stays there for a sustained period.

Wood noted that there has been a lot of political rhetoric coming out of Washington regarding a national economic growth rate in excess of 3 percent per year. Much of this talk is fueled by the fact that the recent tax cuts will result in a significant increase in the federal budget deficit that will only be offset if economic growth exceeds 3 percent per year.

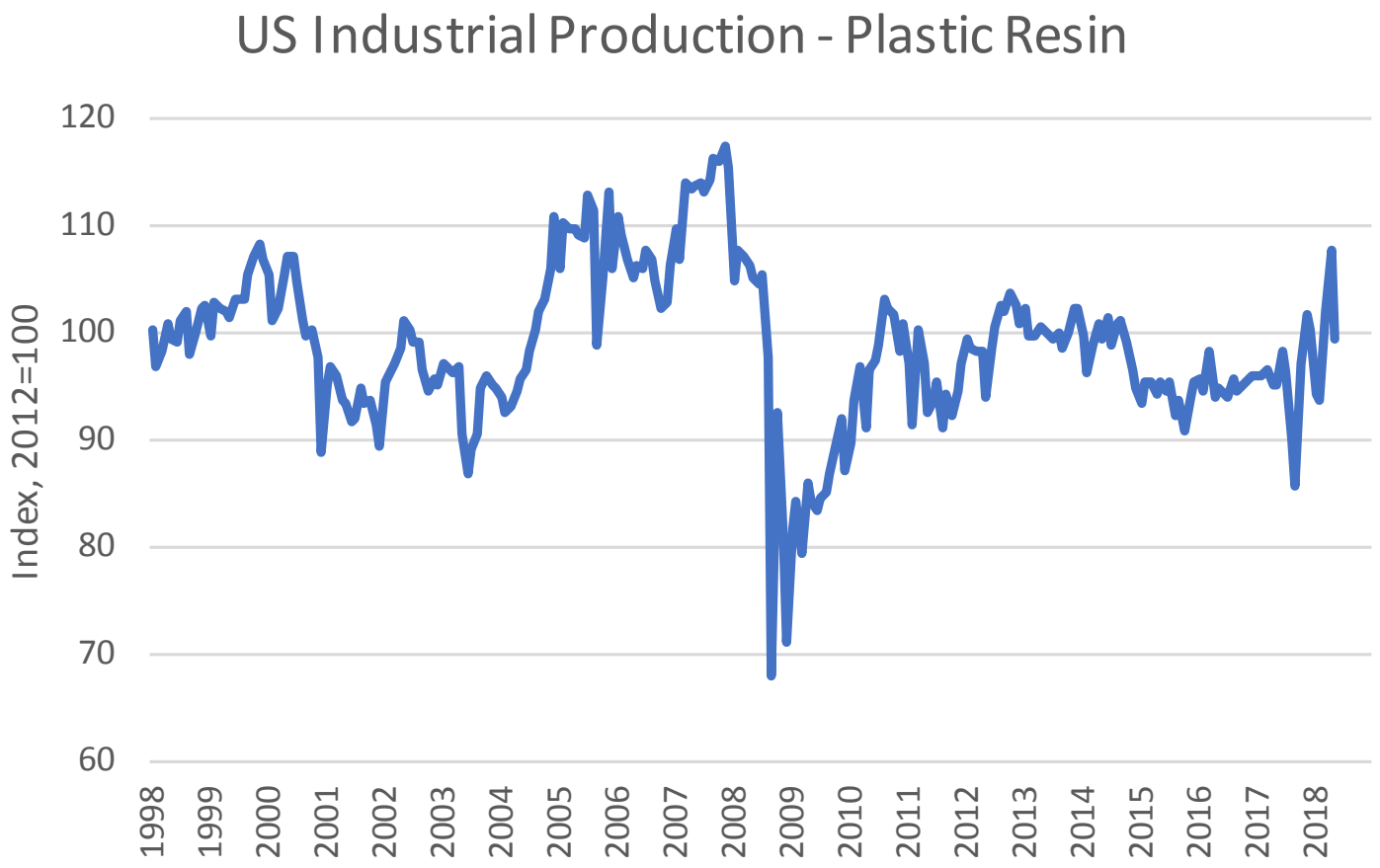
"So, all we have to do is crank up the growth rate to at least 3 percent so that the loss of revenues caused by tax cuts will be offset by revenues gains stemming from increased economic activity," he explained. "That seems to be the message coming from the Trump administration. And they might be right."

But Wood added that there is a potential problem with this scenario, and it stems from the fact that an economic growth rate in excess of 3 percent is higher than the long-term potential for the U.S. economy at the present time.

"It is impossible to assess accurately what the long-term potential rate of growth for the U.S. truly is, but roughly speaking it is the rate of population growth added to the rate of productivity growth," he said.

For many years the rate of population growth in the U.S. has been well below 1 percent per year. This component of the formula is relatively easy to measure, so it is accepted as accurate. The more difficult component to measure is the rate of growth in productivity. Wooded noted that since the end of the last recession, official measures of productivity growth have also been well below 1 percent per year.

"Now maybe the official data underestimate productivity gains in the digital age; nevertheless, it is difficult to get to a long-term potential rate of growth much higher than 2 percent per year in the U.S.," he opined. "Simply put, there just has not been enough investment during the past decade to push productivity rates up much higher. Whether it is investment in infrastructure, investment in capital equipment, or investment in workforce development, all these areas have suffered in recent years



Source: Federal Reserve Board

from underinvestment. And the current low rates of productivity growth are what we get to show for it now."

Thus, a long-term rate of 2 percent is what is sustainable in this country at the present time. Growth rates that exceed this level run a very high risk of creating unacceptably high rates of inflation.

Wood noted the difference between an economy's long-term potential rate and a rate that is higher than that level is called the "output gap."

"Economies can run for a while when there is an output gap, but not forever," he said. "Historical data suggest that an output gap of about three years is about as long as an overperforming economy can go. After that it enters a recession phase."

Moreover, Wood also noted the U.S. economy functioned for eight years growing by 2 percent per year without causing any signs of overheating.

"Time will tell whether we can sustain a higher rate of growth," he said. "The U.S. may be able to spur productivity growth in the coming months to a level that will sustain 3 percent growth. But business owners and managers should pay close attention to the inflation data in the coming months and not get blindly caught up in any euphoria that may potentially be created by faster economic expansion."

The ISM Manufacturing Index averaged a robust 59.4 so far in 2018, and this index should stay above the 55-level for the remainder of the year. This means that manufacturing activity will steadily rise for the next few months.

New orders for durable goods were up more than 8 percent for the year-to-date when compared with the same period a year earlier. For all of 2017, new orders for durable goods were up 5.9 percent. The GDP data continues to show that consumer spending is gradually accelerating, and this will continue to drive demand for durable goods in the coming quarters. The forecast for durable goods orders calls for a gain of 7 percent in 2018. Growth in the durable goods data still correlates closely with growth in production of plastics parts.

Total production of plastics products slowed to a moderate gain just under 2 percent so far in 2018 when compared with the previous year. For all of 2017, total U.S. output of plastics products increased 1.7 percent when compared with 2016.

The monthly capacity utilization data for the plastics industry averaged 80.4 percent during the first eight months of 2018. This is below the average of 82.4 percent from the same period in 2017. The forecast calls for the trend in this data to rise gradually through the end of 2018 to a level of 83.

A comparison of the industrial production chart with the capacity utilization chart still confirms Wood's long-running hypothesis that the U.S. plastics industry is becoming more productive at an average annual rate of 3 percent to 4 percent.

"The data show that during the better part of the past two years production levels expanded only modestly, and thus, the rate of capacity utilization in this industry drifted downward," he said.

The shipments value of plastics products (a measure of the total dollar value received) was up 2 percent to date 2018 when compared with the same period in 2017. For all of 2017, the value of shipments declined by 1 percent when compared with 2016. The forecast for the value of shipments in 2018 calls for a gain of 2 percent.

Data from the Federal Reserve indicate that the total US output of plastics resins so far this year is up by 4 percent from last year and the upward trend is accelerating. According to Wood, this figure is for all types of resins; therefore, this should only be considered as an average rate for the resins industry. There is a divergence amongst the rates of the various types of resins.

The trend in the price of crude oil has been steady-to-up this year.

"Crude prices are not expected to rise rapidly, but the global demand for energy is rising," Wood said. "This will keep a floor under prices in the near-term. Natural gas prices have been range-bound recently, and they remain at a reasonable level. Accelerating global economic growth will push the market fundamentals towards higher prices in the long-term."

The trend in corporate profit levels for U.S. manufacturers is upward in 2018. By historical standards they remain at elevated levels and the outlook for profitability remains positive.

"Profits for durable goods manufacturers are firm at a level just below the peak from 2014," Wood explained. "Barring any major changes in policy or the geopolitical situation, the outlook for profits remains healthy."

Another signal is the gradual downward momentum in motor vehicle profits, and Wood said this will likely continue.

"The bottom in the trend in profits for the computer industry is now behind us, and earnings in this sector should remain strong," he explained. "The same appears to be true for the food industry, as industry profits jumped in recent quarters. This trend bears close scrutiny because it is a good indicator of demand for many types of packaging products."

U.S. housing starts were up 6 percent during the first three quarters of 2018 when compared with the same period last year, but Wood said the trend is slowing.

"The forecast calls for growth of 3 percent in 2018," he said. "This is a moderate gain in the number of starts, but the real strength this year will still be in spending on renovations and repairs to existing homes."

Spending on renovations and repairs hit an all-time high in 2017, and this upward trend will likely continue for the foreseeable future.

"Retail sales (excluding autos) are up almost 6 percent in 2018 when compared with the previous year," he said. "For the year 2017 they were up 4.5 percent. Retail sales growth will be supported by wage gains and rising consumer spending in 2018. The forecast calls for an annual gain in the range of 6 percent in 2018."

Trade war impact on economy

As President Donald Trump intensifies his trade war with China, the tit-for-tat blows signal the battle will likely escalate further, with analysts predicting the possibility of real damage, in the United States and perhaps globally, beginning next year.

Some other economists forecast milder impacts. But most foresee the threat to the U.S. economy rising.

"This is the point where we move from very small effects to something that's more notable," said Lewis Alexander, an economist at Nomura Securities.

According to Alexander, as the dispute intensifies, it is taking the United States into unknown economic territory. For the past three decades, the U.S. economy has become increasingly open and more globally connected, with complex supply chains moving its products and those of its key trading partners across borders with few obstacles.

Now, it may be taking a step back.

"We don't have experience with this kind of policy change," Alexander explained.

Adding to the uncertainty are other trade disputes that make it harder for companies to make long-term plans, he added. Some multinational companies, for example, that might want to shift production from China to Mexico could delay that move until talks to rewrite the North American Free Trade Agreement conclude. The U.S. has reached an agreement with Mexico on changes to the agreement, but has yet to do so with Canada.

The Trump tariffs will likely raise U.S. inflation modestly, economists estimate, particularly if all imports from China are taxed. That would raise the cost of many more everyday consumer items in key plastics end markets, including electronics, home appliances and toys.

Outlook

It may be natural to assume that age may take a toll on the current recovery, but it has been extremely shallow. This would suggest that excesses have not built as quickly as in other cycles and the current growth run still has some staying power, which would be good news to the plastics industry and resin distributors.

Analysts are conservative when offering an analysis on the coming year. The Congressional Budget Office has stated that it anticipated growth would start to slow during the second half of 2018 as hits to consumer spending and agricultural exports either fade or reverse. For instance, some second-quarter soybean exports were aimed at beating Chinese tariffs that took effect in July and cut future shipments.

"In 2019, the pace of GDP growth slows to 2.4 percent in the agency's forecast, as growth in business investment and government purchases slows," CBO director Keith Hall said in a statement.

The CBO also cautioned that trade tensions could make a bigger dent on GDP growth than anticipated. An escalating U.S.-China trade war could result in tariffs on all goods traded between the world's two largest economies.

While trade issues and other potential economic indicators may be offering up some reasons for concern, those issues don't seem to be enough to lower most measures of optimism about the year ahead. ■

Resin distribution: Export trends

The U.S. resin export boom which has been described as being "just around the corner" for several years has faced its share of challenges, including construction delays and other issues. Now, it may be facing yet another hurdle as tariffs loom as a potential threat.

As additional polyethylene capacity continues to come on line, the resin distribution sector also finds itself looking for new markets for the material.

A key driver to this shift in focus likely will be tariffs placed on products by the Chinese government amid a developing trade war with the United States.

According to Jean Sudol, president of International Trader Publications Inc., tariffs may have an impact on resin exports, but it probably is too soon to see any ripple effect in the data.

"In advance of these, imports into the U.S. from China of several products were up sharply," Sudol said. "Year-to-date through July, U.S. imports of fabricated plastic products identifiable by polymer grade were up 22 percent, to 2.4 million tons; imports from China were 45 percent of the total."

Sudol noted that key trends include an increase in U.S. exports of ethylene polymers (LDPE, LLDPE, EAOC, HDPE, EVA, Ethylene Copolymers) in 2018 that have trended upwards from the final quarter of 2017 and have climbed through several new record highs this year.

"Year-to-date through July, U.S. exports totaled 3.9 million tons, up 20 percent from the same period in 2017," Sudol said. "Latin America, including Mexico, was the destination for 45 percent of the total volume, up 12 percent from same period last year."

Moreover, Asia-Pacific was for 24 percent (up 31 percent); Western Europe for 12 percent, noting that exports to this destination were up 103 percent.

U.S. exports of propylene polymers (homopolymer, copolymer and polyisobutylene) were down 14 percent through July, mainly on lower shipments to Canada and Mexico, which made up nearly 75 percent of the U.S. total.

"Over the same period imports into the U.S. climbed 36 percent, to 370,000 tons," Sudol explained. "These were from many sources, led by Korea, Brazil, Singapore, Germany, Canada and Saudi Arabia."

On Aug. 23, the U.S. imposed tariffs of 25 percent on imports of many fabricated plastic products from China. The Office of the US Trade Representative is expected shortly to announce tariffs on even more fabricated plastic products, to go into effect probably in October.

The loss of the Chinese market for recycled polymers led to a 31 percent drop in U.S. shipments through July, to 746,000 tons.

"Nearly 75 percent of this is R-PE and R-PP," Sudol explained. "Higher volumes to India, Malaysia, Thailand, Vietnam and others partly offset the drop to China."

"Through July, the U.S. exported a total of 242,000 tons of PC, up 16 percent, of which 71,000 tons went to China, up 31 percent," Sudol explained. "The U.S., however, did include imports of polycarbonates from China on its list, in effect on Aug. 23."

Through July, the U.S. imported a total of 52,000 tons of polycarbonates, down 40 percent. Imports from China were 2,800 tons of the total, down 89 percent. ■

US EXPORTS - All polymers of ethylene

Year	Quantity (tons)	Value (U.S. $)
2013	4,816,446	8,073,617,717
2014	4,517,691	8,156,924,924
2015	5,268,894	7,942,667,219
2016	5,461,267	7,519,220,007
2017	5,342,358	7,995,946,633
2018*	3,899,384	5,724,486,885

*Source: International Trader Publications ; *- Through July*

US EXPORTS - All polymers of propylene

Year	Quantity (tons)	Value (U.S. $)
2013	1,834,066	3,632,812,082
2014	1,795,287	3,709,000,558
2015	1,809,425	3,164,159,686
2016	1,848,052	3,085,425,723
2017	2,052,417	3,482,241,153
2018*	1,120,116	2,195,337,474

*Source: International Trader Publications ; *- Through July*

US EXPORTS - PET Bottle grade

Year	Quantity (tons)	Value (U.S. $)
2017	72,784	104,986,455
2018*	45,948	61,081,450

*Source: International Trader Publications ; *- Through July*

US EXPORTS - PET Other than bottle grade

Year	Quantity (tons)	Value (U.S. $)
2017	154,465	251,260,782
2018*	93,721	157,283,301

*Source: International Trader Publications ; *- Through July*

US EXPORTS - All polymers of styrene

2013	605,004	1,482,508,623
2014	568,687	1,493,999,412
2015	583,955	1,369,602,028
2016	593,764	1,303,619,623
2017	613,072	1,422,075,049
2018*	349,257	838,525,432
2018*	241,578	749,221,042

*Source: International Trader Publications ; *- Through July*

US EXPORTS - PVC

Year	Quantity (tons)	Value (U.S. $)
2013	3,264,629	4,104,914,854
2014	3,021,564	3,972,061,251
2015	2,966,258	3,474,600,213
2016	3,093,559	3,340,706,315
2017	3,080,456	3,705,230,000
2018*	2,002,716	2,362,200,744

*Source: International Trader Publications ; *- Through July*

US EXPORTS - Polycarbonates

Year	Quantity (tons)	Value (U.S. $)
2013	399,580	1,262,481,823
2014	432,587	1,384,663,746
2015	388,701	1,226,912,816
2016	344,145	1,072,243,301
2017	364,417	1,129,295,830
2018*	241,578	749,221,042

*Source: International Trader Publications ; *- Through July*

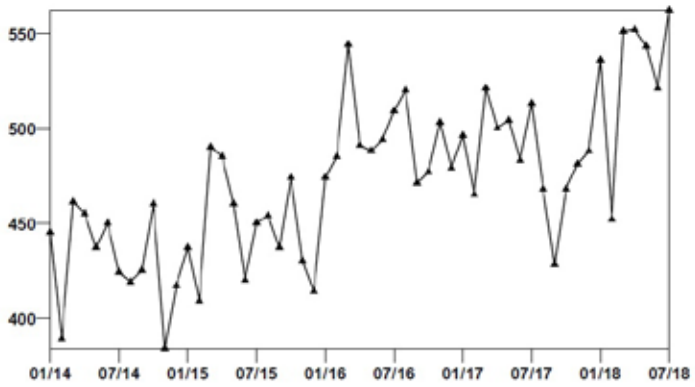
US EXPORTS - PET

Year	Quantity (tons)	Value (U.S. $)
2013	275,270	551,511,514
2014	267,872	510,182,971
2015	247,732	436,202,770
2016	231,897	389,417,437

*Source: International Trader Publications ; *- Through July*

VIRGIN COMMODITY POLYMER IMPORTS - 000'S TONS

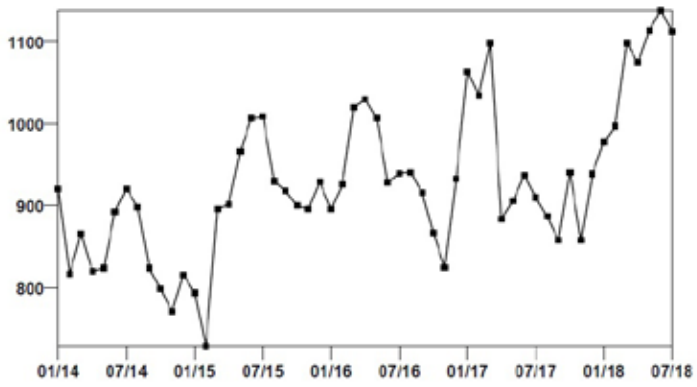
January 2014 - July 2018



Source: International Trader Publications

VIRGIN COMMODITY POLYMER EXPORTS - 000'S TONS

January 2014 - July 2018



Source: International Trader Publications