Plastics & Packaging

Spotlight:

Private Equity Eyes Plastics Growth Page 4

Private equity interest in the plastics and packaging space remains robust with differentiated businesses in high demand. In our roundtable spotlight, equity sponsors share their perspective on sector opportunities and challenges, areas of future investment activity, drivers of consolidation, and trends in the financing markets.

Market Update: Page 14

The plastics industry is showing continued strength, with medical, aerospace, and automotive among the markets seeing above-average growth. Economic expansion is anticipated in 2016, with plastics processors benefiting from growth in consumer spending which is stimulating demand for plastic products and lower material costs resulting from the decline in resin prices.

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The BGL Plastics & Packaging Insider is published by Brown Gibbons Lang & Company, a leading independent investment bank serving middle market companies throughout the U.S. and internationally.

M&A and Capital Markets Activity

Plastics

- High quality plastic component and packaging manufacturing assets are receiving strong reception from buyers and lenders which is fueling an active M&A market. Corporate activity over the last 12 months included in Engineered Products: Newell Rubbermaid (NYSE: NWL)/Jarden (NYSE: JAH); NN (NasdaqGS: NNBR)/Precision Engineered Products; and TransDigm Group (NYSE:TDG)/Pexco Aerospace Business and in Packaging: RPC Group/Global Closure Systems; and Schweitzer-Maudit International (NYSE:SWM)/Argotec. Medical plastics saw significant activity including ESCO Technologies (NYSE: ESE) with two acquisitions (Plastique Group Limited and Fremont Plastics); Pexco (Scientific Plastics and Precision Extrusion), and Technimark (Ci Medical Technologies) among the recent deals.

Broad Market

- The M&A market was off to a slow start in 1Q16. Overall middle market deal volume[1] (based on number of transactions) declined 13 percent from the same period a year ago and 21 percent from 4Q15. In March, *Standard & Poors Leveraged Commentary & Data* (S&P LCD) reported median EBITDA multiples of 9.5x and 9.0x for strategic and financial buyers, respectively, on transactions valued less than $250 million, and 9.7x and 8.5x on transactions valued between $250 and $500 million.
- M&A continues to remain the best strategy to achieve meaningful growth and meet shareholder expectations, according to Citizens Bank's *2016 Middle Market M&A Outlook*, which revealed that more than half of mid-sized U.S. companies are looking for transformative deals to help them boost revenues in 2016. Fifty-six percent of the participants in the Citizens survey predict valuations will stay flat or go down.
- Acquisition financing continues to remain competitive. S&P LCD reported total leverage of 4.7x in March for middle market transactions with enterprise values less than $500 million. Disruption in the high yield market is bringing overall leverage multiples down for larger deals (companies with EBITDA above $30 million), which are requiring more equity, and debt pricing is firming to increasing slightly—a trend visible over the last quarter of 2015 and early 2016. In the broader market (EBITDA of less than $50 million), total leverage multiples declined to 4.4x through March—down from 5.3x in 2015. Financing for lower middle market deals remains unchanged. The exception is commodity sectors where volatility and price deflation have impacted deals and lender risk appetite.

[1] Middle market defined as enterprise values between $25 million and $500 million.

- Overall middle market loan volume in 1Q16 fell to the lowest level in six years, according to Thomson Reuters LPC's *2Q16 Middle Market Investor Outlook Survey*, with broader market volatility, wider pricing levels, and economic uncertainty all contributing to the volume slowdown. 1Q16 LBO issuance reached $2.24 billion, down 55 percent from $5.0 billion in 4Q15. Lenders are exhibiting heightened concern about the U.S. economy, with 55 percent of respondents reporting modest weakness in issuer performance versus only 15 percent at this time last year. Fifty percent of surveyed lenders expect yields on sponsor-led transactions to stay the same in 2Q16 (21 percent said tighten, 29 percent said widen).

Public Equity Markets

- Volatility persisted through the first quarter as the energy crisis and concerns of global economic weakness plagued the equity markets, sending broader indices down as much as 11 percent. Markets rallied in March as oil moved closer to $40 per barrel, signaling prices may have reached a bottom. The S&P 500 and DJIA are down 1.6 percent and 1.8 percent year-over-year, respectively. BGL Plastics & Packaging composite indices have outperformed the market during the same period, led by Plastic Products with a year-over-year return of 9.6 percent.

*As of April 8, 2016.

Operating Highlights

- The U.S. manufacturing sector expanded in March after five consecutive months of contraction according to the March Manufacturing Institute for Supply Management (ISM) Report On Business. The overall economy grew for the 82nd consecutive month. Real GDP increased 2.4 percent in 2015 according to the Bureau of Economic Analysis. Expansion of 2.0-2.75 percent is forecasted for 2016.
- Commodity grade resins have seen a meaningful drop in prices contributing to lower material costs for plastics processors.
- Plastics processors hold an optimistic outlook on the U.S. economy and are projecting growth in 2016. Medical, Building/Construction, Packaging, and Industrial are among the end markets showing positive growth.

For more information on how BGL's Global Plastics & Packaging Practice can assist your company, please contact:

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Plastics & Packaging Insider

Spotlight On:

Private Equity

Private equity interest in the plastics and packaging space remains robust with differentiated businesses in high demand. Sponsors continue to aggressively pursue new platforms and seek add-on acquisitions to expand their customer value proposition and are aggressively pursuing synergistic buys that bring technology and capability expansion and access to new markets.

In a roundtable spotlight, we have assembled private equity sponsors with investments in the plastics industry to provide their perspective on sector opportunities and challenges, areas of future investment activity, drivers of consolidation, and trends in the financing markets.

RECENT PRIVATE EQUITY INVESTMENT ACTIVITY

ENGINEERED COMPONENTS

	TARGET	PLATFORM	INVESTOR
March 2016	3D	q|p quantum plastics	Quantum Ventures of Michigan, LLC
February 2016	AIM Aerospace		Liberty Hall Capital Partners
February 2016	Met2Plastic metal to plastic solutions	Dedienne Multiplasturgy Group	NCI Cultivons l'ambition; Ouest Croissance
January 2016	Boston Plastics	USF US Farathane	The Gores Group
January 2016	Tepso Plastics Mex, s.a. de c.v.		
January 2016	Scientific Plastics, Inc.	Pexco	Odyssey Investment Partners, LLC
December 2015	Precision Extrusion, Inc.		
January 2016	Compass	MDI Molded Devices Incorporated	CVF Capital Partners Central Valley Fund

	TARGET	PLATFORM	INVESTOR
December 2015	Bates Industries, LLC	MDI Molded Devices Incorporated	CVF Capital Partners Central Valley Fund
January 2015	Galow Plastics		
December 2015	Ci Medical Technologies From Prototype to Production	Technimark	Pritzker Group Private Capital
November 2015	NPI Medical		Tonka Bay
July 2015	giplastek		Gladstone Investment
June 2015	Parkway		Capital Partners®
May 2015	m	Tenere	Watermill Group

PACKAGING

	TARGET	PLATFORM	INVESTOR
April 2016	Heritage		
September 2015	Wisconsin Film & Bag Proven People. Proven Results.	Novolex	Wind Point Partners
March 2016	ExactCare Pharmacy		Nautic Partners LLC
March 2016	Inmark		Quad-C
January 2016	HCP Next Generation Packaging		Bailey Private Equity Asia
December 2015	M&Q Packaging Corporation		Capital Partners®
December 2015	Coating Excellence International	ProAmpac	Wellspring Capital Management LLC
December 2015	Optimum Plastics The Power of Innovation	Charter NEX Films A Better Way	Pamplona Capital Management

	TARGET	PLATFORM	INVESTOR
October 2015	Hillside Plastics, Inc.	CMI Carr Management, Inc.	Behrman Capital
October 2015	Liqui-Box Design. Connect. Deliver.		Olympus Partners
August 2015	AMPAC innovation in action	Prolamina	Wellspring Capital Management LLC
August 2015		Consolidated Container Company	BainCapital
June 2015	Weener Plastic Packaging Group		3i
March 2015	caplugs		Berwind
February 2015	Intertech Plastics, Inc	Pretium Packaging	Genstar Capital, LLC
February 2015	popular ink printing popular products		Highlander Partners, L.P.

SOURCE: PitchBook

Spotlight On:

Private Equity

profile

JOE HEINEN

GHJ&M | GOLDNER HAWN JOHNSON MORRISON

Imperial Plastics, Inc.

Joe Heinen is a Managing Director at GHJM and currently serves on the board of Imperial Plastics, an injection molding platform formed in 2012. Imperial produces injection molded engineered plastic components for the recreation, industrial, medical, and consumer markets. The company has completed two add-on acquisitions under GHJM's ownership with the purchase of Rolco and Engineered Polymers, adding new capabilities to the platform, as well as new customers and end markets.

Q&A

WHAT ATTRACTS YOU TO THE PLASTICS INDUSTRY?

We recognize the industry as being highly fragmented. The Midwest has a strong manufacturing base, so we saw an opportunity to consolidate and build up a superregional platform.

Q Private equity groups have historically been active investors in plastics and packaging businesses. What attracts you to the space?

A We recognize the industry as being highly fragmented. There are a number of small molders, particularly in the Midwest, many with individual owners who are dealing with succession issues. They don't necessarily have deep management teams. The Midwest has a strong manufacturing base, so we saw an opportunity to consolidate and build up a superregional platform.

Q What are some of the differentiating characteristics of the business that led you to pursue a transaction with Imperial Plastics?

A We acquired Imperial Plastics as a platform in 2012. The business was fairly diverse in terms of capabilities and end markets. This would include consumer products, as well as a strong base of industrial customers.

Our acquisition growth strategy was focused on building value-added capabilities. Typically, engineered plastic component manufacturers specialize in a particular market niche. Some might be strong in assembly, for example, or overmolding.

We completed our first add-on acquisition in 2012 with Rolco, adding two-shot and multi-shot injection molding capabilities which have some unique applications in consumer and industrial products. Engineered Polymers, which we acquired in 2014, added large tonnage equipment capabilities, expanding our production range from 60-750 ton up to 3,300 ton presses which really allowed us to be that "one-stop shop" for customers. Agriculture is a major market in the Midwest with some large OEMs located in the region. We saw an opportunity to diversify into that end market in a meaningful way.

Both acquisitions added new capabilities to the platform, as well as new customers and end markets.

Q What are your plans to grow the business?

A Engineered Polymers was a major acquisition, so we are focused on that integration and converting some of the organic opportunities in front of us.

Part of the investment will be in manufacturing capabilities and human resources to continue to be aggressive in pursuing organic opportunities. We've expanded our sales organization and technical team. You want to embed an engineer in a customer relationship as a way to consolidate volume and cross-sell your unique capabilities to identify new business opportunities, e.g., metal-to-plastic conversion.

profile

JUD SAMUELS

Jud Samuels is a Partner at New Heritage Capital, which completed the management-led equity recapitalization of EPTAM Plastics in 2014. EPTAM Plastics is a fabricator of precision-machined plastic components for customers across a wide range of industries who demand mission critical parts with extremely tight tolerances. Markets served include aerospace & defense, semiconductor, medical, industrial, and power generation.

Q&A

WHAT ATTRACTS YOU TO THE PLASTICS INDUSTRY?

It is a highly fragmented industry. It is about finding companies that are doing something that others can't. Simply put. That is what is attractive.

Q What are some of the differentiating characteristics of the business that led you to pursue a transaction with EPTAM Plastics?

A At the end of the day, we were looking for a business that can deliver what a lot of other plastic component manufacturers cannot:

- A company that is delivering a more sophisticated level of service.
- A company that acts as an extension of the customer supply chain, whether that means getting into assembly or JIT delivery.
- A company with end market diversity and customer diversity.
- A company with an experienced and very strong management team.

The EPTAM management team has had a long and impressive track record of achieving successful outcomes for its customers and represents the type of passionate and entrepreneurial team we look to invest behind.

We want to work with the company to implement the next steps of its growth objectives.

Q What are your plans to grow the business?

A We are certainly looking to grow both organically and through acquisition. From an organic perspective, it is continuing to deliver the high level product quality to our existing customers and growing those relationships. It is adding new customers who have heard of our capabilities and growing across the end markets that we serve.

We are big believers in adding resources, both assets and people, to help the business achieve its growth goals.

Spotlight On:

Private Equity

profile

RUSS SPIELER

CAPITAL PARTNERS®

PARKWAY

M&Q Packaging Corporation

Russ Spieler is a Principal at Capital Partners. Parkway Products and M&Q Packaging Corporation are two of the firm's plastics holdings, both 2015 investments. Parkway Products supplies custom plastic and magnesium molded parts to the automotive, aerospace, medical, and industrial markets. M&Q Packaging Corporation—the firm's first investment in the plastic packaging industry—is a manufacturer of high-temperature thermoplastic nylon and polyester films and bags primarily for the foodservice industry.

Q&A

WHAT ATTRACTS YOU TO THE PLASTICS INDUSTRY?

In any of these plastics businesses, you're taking advantage of the fragmentation in the market and the ability to find add-ons for these platforms.

Q Private equity groups have historically been active investors in plastics and packaging businesses. What attracts you to the space?

A In any of these plastics businesses, you're taking advantage of the fragmentation in the market and the ability to find add-ons for these platforms.

Q What are some of the differentiating characteristics of the business that led you to pursue a transaction with Parkway Products?

A Parkway Products is basically a consolidation platform in injection molding. The company injection molds a variety of engineering, high performance, and thermoset resins and also does other forms of molding including structural foam, thermoset, insert, multi-shot and compression, as well as magnesium thixomolding.

The management team has a demonstrated track record of integrating small add-on acquisitions. Through scale efficiencies, Parkway has been able to consolidate smaller molders into its footprint and make operating improvements, realizing significant cost savings to materially increase the EBITDA margin. We have a robust stream of inbound opportunities for tuck-in acquisitions identified for the platform.

Q What are some of the differentiating characteristics of the business that led you to pursue a transaction with M&Q Packaging Corporation?

A M&Q is our first investment in plastic packaging. The company is a manufacturer of plastic films primarily for the food industry, which is one of the most attractive aspects of the business. We like food packaging because the industry has a number of large consolidators that keep multiples high.

A key part of our investment thesis for M&Q is to grow the business organically and through tuck-in acquisitions to a scale that would be attractive to the large strategic players.

M&Q has a diversified customer base. The company has more than 1,500 customers and no significant concentrations. The company has a unique material focus on nylon film which is a smaller market with fewer competitors. If the company had focused on more ubiquitous resins, it would be less attractive because of the competitive environment for commodity grade films.

roundtable

Q What differentiates one plastics business from another?

Heinen, Goldner Hawn Johnson & Morrison. A focus on complex parts and sub-assemblies versus the traditional "shoot and ship" products which are commodity-grade and lower margin.

Being a value-added, full service supplier to your customers. Certainly for the larger OEMs, the one-stop shop is very appealing. To be able to consolidate more business under one roof has its advantages. It requires having an engineering team that can go in and support a major customer, not as a sub-million dollar relationship but as a $10-$15 million relationship. Rather than supply a single part, it enables you to assemble the larger program and drive more value to their organization. That trend is consistent across our customer base. It has enabled us to be more competitive in a market where OEMs can be reluctant to change molders unless there is an issue.

Samuels, New Heritage Capital.

- Ability to hit complex geometries, meaning parts and components with multiple facets and angles versus just size
- Ability to produce components that hold tight tolerances
- Ability to machine various types of plastic and resin composites

The industries that EPTAM serves often require specialty plastics which can be very difficult to work with and require a certain institutional knowledge to be able to produce components. EPTAM is experienced with all engineering plastic materials, including thermosets and thermoplastics, in addition to high-temperature materials such as PEEK and PEEK composites.

Spieler, Capital Partners. To be able to work with unique materials and specialized processes. An example for Parkway is magnesium thixomolding. Parkway operates one of five magnesium thixomolding operations in North America. Magnesium combines the material benefits of die casting with the manufacturing flexibility and fine detail of injection molding. Magnesium is lightweight and used for its high strength and stiffness in precision applications to achieve tight tolerances.

Also, we believe companies like M&Q that are able to build and leverage proprietary equipment, have strong barriers to entry, and enjoy stronger cash flow than companies that rely more heavily on third party equipment to produce their products.

Q What do you perceive to be the major industry-specific trends and dynamics that are driving growth?

Heinen, Goldner Hawn Johnson & Morrison. Imperial has moved to a model of heavy engineering content, particularly over the last five years. Increasingly, our engineers are working alongside engineers at our customers, getting to know their businesses at the product and subassembly level. Having that engineering relationship can create opportunities. In a number of instances, we have been able to convert metal parts to plastic, which saves weight and usually saves the customer money. We are seeing these opportunities across different industries. Where there is an application to do it, being able to work with more advanced materials allows you to make that substitution.

There increasingly are opportunities as a result of near shoring.

Samuels, New Heritage Capital. Plastic machining customers are demanding more from their suppliers and viewing them as more than just part manufacturers, but as critical partners in their supply chains. Customers are asking their suppliers to deliver parts on a JIT basis, hold inventory for them, and expand into assembly, so instead of delivering a specific part, you are delivering a subassembly that goes into a finished product. That trend is only going to continue, so one needs to be equipped to not only make parts but to be a supply chain partner to these customers.

As the plastics industry evolves, you are seeing companies substitute specialty plastic for metal when they can.

Spieler, Capital Partners. In food packaging:

- Convenience in consumer and foodservice packaging
- Conversion from glass to plastic and other resins (HPDE) to higher performing resins (PET / Nylon)
- Performance – improving properties like oxygen barriers in food packaging to prevent spoilage

In engineered plastic components:

- Substitution of plastic or light weight metals for more traditional metals. Parkway is able to provide both plastic and light weight metallic solutions. Magnesium thixomolding replaces heavier metals and cast parts.

WHAT DIFFERENTIATES ONE PLASTICS BUSINESS FROM ANOTHER?

A focus on complex parts and sub-assemblies versus the traditional "shoot and ship" products which are commodity-grade and lower margin. Being a value-added, full service supplier to your customers. Certainly for the larger OEMs, the one-stop shop is very appealing.

- Joe Heinen

roundtable

- Customers are looking more to their suppliers in part design both in form and in material properties / performance. With 3D printing and in-house mold manufacturing capabilities, a component manufacturer can create rapid prototypes and be more flexible to produce parts for customers' finished products.

Q What segments are viewed as the most attractive?

Samuels, New Heritage Capital. What is important when looking at an investment in a plastic components manufacturer is diversification. Within a diversified set of end markets, one that is most attractive is medical plastic components. Healthcare is a large and growing market with good demand visibility.

Aerospace is another area that is particularly attractive. Once you're certified to produce aerospace components and those components are used on a certain type of aircraft, the revenue is quite predictable, which is why private equity investors are attracted to the space. It is an area we are in and excited about continuing to grow.

The customers in those industries are demanding. You need to have the right infrastructure in place to deliver high quality components with complex geometries and tight tolerances in the materials they require. Typically you are either sole sourced or one of two suppliers, so there is good revenue visibility.

Q Have you evaluated businesses involved in medical plastics? How are you approaching medical if not currently in today?

Heinen, Goldner Hawn Johnson & Morrison. Part of our investment thesis for Imperial was to grow into medical, as we have a number of large OEMs in our footprint. We have the capabilities and built out a Class 100,000 clean room.

We have found that the sales cycle to break into medical OEMs is very long. The easiest way to enter the market would be through an acquisition rather than trying to grow organically. If we pursued another add-on, we would likely be targeting medical.

Samuels, New Heritage Capital. EPTAM is involved in medical plastic component manufacturing in both medical tools and implants and is actively looking to build its presence.

Spieler, Capital Partners. The high barriers to entry (FDA approvals, clean room) typically translate into lower competition and generally higher margins, which are attractive attributes of these businesses. Healthcare is a growth industry with the aging population, and new technology is requiring more specialized packaging and parts.

Q What areas are of particular interest?

Heinen, Goldner Hawn Johnson & Morrison. It goes back to the distinction of "shoot and ship" versus complex parts. We'd be looking for complex parts and subassemblies. Then you are adding more value in the chain which can sometimes translate into higher margins.

Samuels, New Heritage Capital. Areas of medical plastics that are of particular interest are implants and medical tools. Implants are of even higher interest because of the recurring revenue stream versus tools that are typically tied to a significant product launch which can be lumpier from a revenue perspective.

There is a high bar to produce plastic components that go into the human body or in an operating room. It takes time to build a reputation in the industry and relationships with the OEMs that allow you to grow the business.

Spieler, Capital Partners. Consumables or packaging/parts tied to smaller purchases. High end instruments that need sterile protective packaging would be attractive. For example, an endoscope might last three years versus an MRI machine which might have a useful life of 15-20 years.

A producer of implants might trade for a high multiple; however, there is higher risk/reward. You have to be innovative on a regular basis to have a relevant product.

WHAT INDUSTRY-SPECIFIC TRENDS ARE DRIVING GROWTH?

Customers are demanding more from their suppliers and viewing them as more than just part manufacturers, but as critical partners in their supply chains.

- Jud Samuels

roundtable

Q How are you evaluating new investments at this stage in the cycle?

Samuels, New Heritage Capital. Do we look at investments differently now? A little bit, sure, because the chances of a recession are higher than they were 18 months ago. But we're still actively looking at add-on opportunities for EPTAM across a number of industries.

Q What are the most critical challenges/issues facing the industry?

Heinen, Goldner Hawn Johnson & Morrison. It has been difficult to grow organically in this economy. You have to be opportunistic. There isn't a surplus of volume trying to find a home, so it is more of a take share strategy to grow. That said, we have focused on developing a robust sales pipeline, and new quoting is higher than it has ever been.

Direct labor is a challenge in any manufacturing business right now. Skilled technical labor is hard to find and becoming more costly. Healthcare costs only go in one direction. Some of the key expense categories are rising in an environment with sluggish volumes.

OEMs have higher expectations for internal processes and reporting. It has certainly raised the bar in terms of putting certain processes in place and being able to make available detailed levels of reporting.

Spieler, Capital Partners.

- Building an effective sales organization, hiring new and better sales people
- Retaining and creating succession plans for your innovative employees—those involved in customer interaction and technical sales
- Scrap rates
- High volume producers are always worried about the latest manufacturing technology to extract cost savings. Speed and efficiency matter more. Managing capital expenditures can be challenging for these businesses.

Q What is your near-term outlook on the economy?

Heinen, Goldner Hawn Johnson & Morrison. We are setting expectations for a no-growth environment with our management teams. In terms of business planning and expense allocation, plan for zero growth, and beat it.

That said, we have significant capacity to grow, whether it is through acquisition or to support new customers or new projects, and we are investing in the business.

Samuels, New Heritage Capital. The economy is relatively strong. There has been nothing that has led me to believe that a recession is just around the corner, but you always need to plan for that. That is one of main reasons that you want to have a diversified customer base and diversified end markets to mitigate against a severe downturn.

Spieler, Capital Partners. We haven't seen a slowdown, but anticipate the potential for a recession in the next 5 years.

It may not be this year or next year; however, over the life cycle of a new purchase, it will. Cyclicality risk is core to everything we are looking at for any purpose.

Q What is your near-term outlook on end market demand?

Heinen, Goldner Hawn Johnson & Morrison. Broadly, general industrial markets are seeing less than 2 percent volume growth.

The more challenged end markets are the obvious ones, energy being top of the list. The recreation and agriculture markets are also down.

Samuels, New Heritage Capital. With the exception of oil and gas, where demand for most components has fallen precipitously, we have not seen a material slowdown in any of the major industries. Medical and aerospace and defense are growing markets, and demand for general industrial components is strong. The general economic slowdown in China is likely impacting businesses that produce components that are being sold into that market.

Spieler, Capital Partners. Large consumer discretionary is a concern. Energy is weak. Reasons we like recession resistant markets like food, healthcare, and aerospace.

Commodity-oriented parts are more competitive and lower margin and therefore less attractive. Through more specialized capabilities and materials, you can narrow the competition and earn higher margins.

WHAT SEGMENTS ARE THE MOST ATTRACTIVE?

The high barriers to entry typically translate into lower competition and generally higher margins, which are attractive attributes of medical plastics businesses. Healthcare is a growth industry with the aging population, and new technology is requiring more specialized packaging and parts.

- Russ Spieler

roundtable

Q How is new technology affecting the plastics marketplace?

Heinen, Goldner Hawn Johnson & Morrison. The base injection molding equipment hasn't really changed. We are looking for ways to automate using technology to increase manufacturing efficiencies and improve reporting, including monitoring systems that can help us manage the business at the machine level (e.g., throughput, scrap).

3D printing capability to prototype tooling and parts for customers

Samuels, New Heritage Capital. The biggest technology that has come to the plastic component manufacturing market is 3D printing—additive manufacturing. I see it as an opportunity to produce rapid prototypes for customers. The technology has not caught up in any major way to jeopardize the machining or molding industry.

Q How do you see consolidation shaping the industry?

Heinen, Goldner Hawn Johnson & Morrison. The industry is fragmented and will continue to consolidate. There are a number of small operators without a succession plan and have all their net worth tied up in the business. A lot of those businesses are too small as a platform and make more sense to go strategic. Specialized niche players with value-added capabilities and expertise working with advanced materials and applications can offer unique skillsets to strategics in a sale.

Samuels, New Heritage Capital. There will be continued consolidation. It is largely as a result of customers demanding more, so you will see consolidation among technologies—molding, 3D printing, machining—to build the presence that your customers require.

We are actively looking for strategic acquisitions. I am sure that if we are, others are too.

Spieler, Capital Partners. The industry is highly fragmented so there is still significant room for consolidation. There is a generational shift taking place, and that dynamic is always going to be there.

Large strategics are seeing growth slow in their traditional businesses and want to find ways to diversify into faster growing, higher margin segments, so they are hungry for acquisitions. That demand is strong from large consolidators feeling the pressure to expand in a more competitive, slower growth environment.

Private equity will continue to be a big driver of consolidation. M&Q wasn't an acquirer before partnering with us. Now it is.

Q What areas are likely to be more active from an investing perspective?

Heinen, Goldner Hawn Johnson & Morrison. Platforms are becoming hard to find. There is private equity interest particularly when there is a unique capability (e.g., value-added assembly) or a growth industry—medical and aerospace generate a lot of interest.

Samuels, New Heritage Capital. It is a highly fragmented industry. It is about finding companies that are doing something that others can't. Simply put. That is what is attractive.

Q Please share your observations on valuation trends in the plastics marketplace.

Heinen, Goldner Hawn Johnson & Morrison. Valuations are as high as I've seen them, and the lending markets are there to support them. If a company is differentiated and has a unique technology or is working with advanced materials, those attributes tend to drive up the multiples even higher. As a private equity investor, it can be frustrating. Sitting in this economy with a muted outlook, it is difficult to pay a premium multiple and have expectations for meaningful organic growth.

We pay fair prices but often are partnering with business owners who aren't necessarily looking to maximize price. They are looking for a partner and want a balance sheet that can support the growth. They are often rolling over meaningful equity because they believe in the story and want a financial partner to help execute on that growth because managing the balance sheet isn't necessarily their day-to-day expertise.

HOW DO YOU SEE CONSOLIDATION SHAPING THE INDUSTRY?

There will be continued consolidation. It is largely as a result of customers demanding more, so you will see consolidation among technologies—molding, 3D printing, machining—to build the presence that customers require.

- Jud Samuels

roundtable

Samuels, New Heritage Capital. Without a doubt, there has been multiple expansion over the past several years. It is important to stay disciplined with how much a business is worth.

Spieler, Capital Partners. Valuations are elevated. It is a competitive market. The market for mid-sized companies, call it $5-$20 million of EBITDA, is becoming much more efficient. More processes are auctions, and more strategic and private equity buyers are competing, which is propping up multiples. Lending is cheap right now so that is obviously supporting higher valuations.

Q Seller/buyer value expectations: Is there a gap?

Samuels, New Heritage Capital. There is always a gap in seller/buyer value expectations. We like to think of ourselves as being creative partners in helping bridge the gap. We absolutely insist on rollover equity from the senior managers who are driving the business. It is one of the most important signs of an owner's true belief in the future.

Q Spieler, Capital Partners. The low end injection molders know they are at lower multiples. I don't think there is a big gap in value expectations there.

Strategic interest is strong and has been consistently strong, but you have to be of a critical mass. There are industry players that are willing to pay a full multiple (e.g., in some cases double-digit multiples) for assets that are of a reasonable size ($10 or $20 million of EBITDA) and attractive to them.

Q How are you seeing the lending market, broadly speaking, for plastics opportunities?

Heinen, Goldner Hawn Johnson & Morrison. There is a high level of lending interest in the space.

Samuels, New Heritage Capital. For high quality assets in the plastic component manufacturing space, there is strong interest from lenders.

Spieler, Capital Partners. Lender appetite is still robust. We still have a large number of lenders that will look at deals.

Lenders are attracted to many of the same value drivers of a business as sponsors. Barriers to entry resonate with them. They tend to shy away from highly competitive, commodity-oriented businesses because they are always concerned about sustainability of earnings.

The high fixed asset base of these businesses can be valuable to the lender and allows them to underwrite a much higher level than they can on cash flows of businesses that don't have a lot of reusable equipment.

Q Please comment on trends in pricing, terms, and structure

Heinen, Goldner Hawn Johnson & Morrison. Senior spreads have increased over the last six months.

There is a heavy capex component to these businesses. It may not attract as much leverage as you would find in more of an asset-light model. We are not looking to overlever our businesses. What we are typically asking for from the lending community is less than "market."

Samuels, New Heritage Capital. It is somewhat related to your outlook for the U.S. economy. Is a recession around the corner? We are always thinking about the possibility of a downturn. We utilize leverage conservatively to mitigate some of that risk.

I haven't seen material increases in interest rates compared to 12 months ago. The high yield market is challenged today, which is bringing overall leverage multiples down for larger deals. That has not filtered down into the lower middle market.

Spieler, Capital Partners. I think we are just starting to see a slightly softer lending market than six months ago. Pricing spreads have inched up. Lenders seem to be focusing more time on understanding their existing credits and are visiting portfolio companies more.

The regulatory environment that has constrained commercial bank leveraged lending is becoming more stringent, even over the last six months.

WHAT TRENDS HAVE YOU OBSERVED IN VALUATIONS?

Valuations are as high as I've seen them, and the lending markets are there to support them. If a company is differentiated and has a unique technology or is working with advanced materials, those attributes tend to drive up the multiples even higher.

- Joe Heinen

roundtable

Q How do you value the flexibility in amortization and terms that alternative lenders can provide?

Heinen, Goldner Hawn Johnson & Morrison. Even though we may not take the leverage, alternative lenders can be more flexible on amortization or other terms. A traditional lender is typically looking for 7-10 percent of the loan to amortize every year. For a basic industrial business that has a fair amount of capex needs every year, a 10 percent amortization payment really impacts the amount of leverage that you can put on the business. It certainly ties up a lot of cash flow. We have seen some 1 percent amortization deals and are happy to pay a slight premium for that flexibility.

Samuels, New Heritage Capital. There is certainly that relationship between amortization and price, and how much leverage you are putting on the business. It just depends on the deal and what fits the company best. We try to put in place the most efficient debt capital structure for the company.

Spieler, Capital Partners. The best amortization deal from a commercial bank might be stepped, with lower amortization in the first year, ramping up with expected growth. There are BDCs and finance companies that offer 1 percent amortization, but they also charge several hundred basis points more than a commercial bank for that feature.

Lenders compete primarily on hold size to win the mandate because sponsors are looking for certainty of close.

Q How long do you anticipate continued strength/stability in the financing markets?

Heinen, Goldner Hawn Johnson & Morrison. I don't see the availability of credit being an issue this year.

Lenders are not necessarily pulling back on leverage multiples but are likely to have a more sober underwriting of a company's projections and to increase pricing to more adequately reflect the risk they're taking on.

Samuels, New Heritage Capital. I have no reason to believe that the financing markets will not maintain their current levels. I have more reason to believe that they will. For us, it is a little bit less relevant. We don't believe in moving purchase multiples up and down dependent on how much leverage we can put on a business.

It is a competitive market. There is a lot of liquidity chasing a few deals, both on the debt and the equity side. In an environment where multiples are creeping up, it is important to stay true to what you believe is the intrinsic value of the business. The higher the purchase price, the higher the risk that you're taking on. We are not letting the financing market dictate what we think a business should be worth. We'll go out and look for what we think is an appropriate amount of leverage to help get the deal done.

Spieler, Capital Partners. I am still seeing total leverage offers at 5.5x, so I wouldn't anticipate any change this year.

Most public BDCs are trading below book value, which is going to limit their ability to raise additional capital and constrain their ability to lend.

HOW ARE LENDERS APPROACHING PLASTICS DEALS?

Lenders are attracted to many of the same value drivers of a business as private equity sponsors. Barriers to entry resonate with them. They tend to shy away from highly competitive, commodity-oriented businesses because they are always concerned about sustainability of earnings.
- Russ Spieler

Market Update

The North American plastics industry has shown continued improvement, with gains in new orders and production levels supporting a strong reading in the *Plastics News* Business Monitor Index in 4Q15, indicating increased business levels during the quarter. Moderate growth in consumer spending has stimulated demand for plastic products, and processors have benefited from lower material costs resulting from the decline in resin prices. Notable sectors experiencing above-average growth include medical, automotive, and aerospace, where underlying demand drivers indicate strong near-term revenue visibility.

Positive trends contrast with the performance of the overall U.S. manufacturing sector, which was flat-to-down in the second half of 2015, reported Bill Wood of Mountaintop Economics & Research, pointing to challenging market conditions caused by commodity price deflation, slowing exports, and a strong U.S. dollar. Data from the Institute for Supply Management (ISM) confirm, showing economic activity in the manufacturing sector expanded for the first month in March, following five consecutive months of contraction according to the March Manufacturing ISM Report On Business. The overall economy grew for the 82nd consecutive month. Real GDP increased 2.4 percent in 2015 according to the Bureau of Economic Analysis. Expansion of 2.0-2.75 percent is forecasted in 2016.

Purchasing and supply management executives surveyed in the ISM December 2015 Semiannual Economic Forecast believe the U.S. economy will continue to grow in 2016. Sixty-three percent of survey respondents expect revenues to increase in 2016. Executives surveyed expect a 4.1 percent net increase in overall revenues for 2016, compared to a 1.4 percent increase reported for 2015. "Manufacturing purchasing and supply executives expect to see growth in 2016. They are optimistic about their overall business prospects for the first half of 2016, and are more optimistic about the second half of 2016," said Bradley J. Holcomb, chair of the ISM Manufacturing Business Survey Committee. While economists predict a recession in 2016 is unlikely, the probability jumps to 60 percent over the next five years based on the current macroeconomic backdrop.

Medical

Medical continues to be one of the strongest end markets for plastic products, with favorable demand drivers including an aging population, rising number of insured consumers, consumerization of healthcare, and rapid rate of technological advancements contributing to outsized growth. Medical OEMs are returning to core competencies and increasingly outsourcing manufacturing functions, relying on full-service suppliers able to navigate an increasingly complex regulatory environment, deliver processing improvements, and accelerate time to market. In addition to component manufacturing, medical contract manufacturing organizations (CMOs) that can offer "one-stop" value-added solutions encompassing sub-assembly, clean-room fabrication, and packaging, and demonstrate materials technology and process innovation, with experience in advanced materials such as implantable PEEK or PLA-based bioresorbables, serve as an extension of their customers' product development and production, cited Pexco in a corporate whitepaper. "The marketplace increasingly needs more than a molder/processor. It needs a stable and trusted medical advisor, partner, assembler, packager, and labeler, among other value-added services," said Pexco.

"The injection molder and mold maker not only needs to make products "better, cheaper, and faster," said Joan Magrath, vice president of sales and engineering at Mack Molding, in an interview with *Plastics News* at Medical Design & Manufacturing West, "it has to be ready to move into new products and respond to changes in its customer base." Designs are more complex, and products require different plastics, often with high-heat requirements and higher costs, indicated Magrath. "As parts evolve and we zero in on design, we can take stock at moving into plastics from metal," said Mack Molding President Jeff Somple, in the *Plastics News* interview. Mack Molding has observed product development lengths of three to seven years and more reshoring of work from customers concerned about intellectual property protection in Asia.

"We're seeing a big trend toward digitization— the implementation in everyday products," said Courtney Ryan, CEO of the Nypro Division at Jabil, to participants in a *Plastics News* Executive Forum in March. Medical products are getting miniaturized, and care will become more mobile, according to Ryan. "You can wear a [wearables] smart device on your

wrist that can monitor your health—an important feature as health care cost reimbursement moves from a "cost-plus" model to measuring the outcome of care."

"Plastics processors need to figure out how to implant sensors into drug delivery devices, to show how effective they are," Ryan said, referencing a survey that said 93 percent of medical companies would like their supply-chain partners to be actively engaged in the effort for digital transformation of their products.

As OEMs consolidate their supplier bases, size and scale are of increasing importance to support customers across geographies. Medical CMOs are expanding operations in and outside the U.S. to grow with customers, with international markets such as Mexico, Puerto Rico, and Asia in focus. "The time to clear regulatory hurdles is lengthening in the United States, in some cases presenting to OEMs the reality of introducing products abroad first where time-to-market can be shorter," according to the Pexco whitepaper, underscoring the importance of a global manufacturing footprint.

In February, GW Plastics announced expansions in China and the U.S. to support its growing medical business. The construction of a new 125,000-square-foot facility in Dongguan, China, the largest in GW's manufacturing footprint, more than doubles the size of its facilities in anticipation of future contract manufacturing growth in the region. "The GW Dongguan plant has been operating for nearly 10 years and over that time our GW Dongguan sales have grown more than tenfold," said Ben Bouchard, GW's vice president for international business development and managing director for China. "In China we have seen that customers want to see that the supplier has the space readily available to support their projects," he added. GW concurrently announced a U.S. expansion to accommodate additional growth of its Thermoplastic and LSR injection molding and medical device contract assembly business. "This has allowed us to become a natural extension of our customers' production capabilities by providing them with a reliable and proven partner to confidently develop and manufacture their finished medical devices across the globe," said Brenan Riehl, GW Plastics President and CEO. GW Plastics is a full-service contract manufacturer specializing in close tolerance mold building, precision injection molding, and contract assembly for the healthcare, automotive safety, and consumer/industrial markets.

Contract Manufacturing Industry Outlook

According to S&P Ratings Services, U.S. health care spending growth exceeded 5 percent in 2015 but is still substantially below historical levels. A key factor holding back industry growth are industry-wide cost-containment efforts associated with health care reform, said the ratings firm.

Negative market forces of increased pricing pressure, reduced orders, and slowing new product launches have stifled performance for CMOs in recent quarters. Market disruption, due in part to a recent wave of OEM consolidation, is temporary. S&P is forecasting revenue growth in the low to mid-single-digits in the next 2-3 years for the CMO industry, in line with the broader medical device industry, with larger players expected to see outsized growth as they capture market share. The expected shift, reports S&P, is due to a "continued focus by OEMs on consolidating suppliers in favor of large CMOs that can provide a broad range of products and services."

Selected Recent Investment Activity

Recent expansion activity in medical plastics is indicative of an active M&A market.

Pexco has been building its medical platform through acquisitions, starting with the purchase of **Spectrum Plastics** in 2013, which added new capabilities in injection and micromolding and an entry into new medical markets, including surgical device, implantables, and bioresorbable materials work. The company recently completed two acquisitions, announcing the January purchase of **Scientific Plastics**, a manufacturer of injection molded plastics with extensive experience processing demanding engineering materials such as PEEK, Ultem, polysulfone, and polycarbonate, and **Precision Extrusion** last December. Precision Extrusion works with nylon and nylon copolymers, polyurethane, polyetherimide, fluorinated ethylene propylene, polycarbonate, and PEEK, specializing in medical tubing and catheters. Commenting on the Precision Extrusion acquisition, Pexco CEO Neil Shillingford said, "The acquisition represents yet another step begun in 2012 in the direction of full plastics solutions for our customers in our core markets, with medical certainly a priority. "Precision Extrusion provides engineered solutions to its customers in the medical industry and deepens Pexco's ability to offer advanced tubing extrusion

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

solutions to all our strategic customers." Pexco has been backed by **Odyssey Investment Partners** since August 2012.

Thermoform Engineered Quality, a subsidiary of **Esco Technologies** (NYSE: ESE), is expanding its medical packaging business globally. The February acquisition of **Plastique Group** extends its geographic reach into Europe and boosts TEQ's sales for medical devices and pharmaceutical packaging. "We have multiple customers in the United States who prefer we have manufacturing closer to Europe," said TEQ President Randy Loga in an interview with *Plastics News*, adding that the deal will allow Plastique Group to supply its customer base with operations in the United States. Tunbridge Wells, England-based Plastique is a thermoformer of plastic sheet that also has wood pulp molding capability, which provides a new in-house material option for packaging customers. The company reported annual sales of $35 million.

The Plastique purchase follows on the heels of **Fremont Plastics**, acquired last November, which specializes in sterile-ready and non-sterile medical trays, medical packaging, and light handle covers. "With the addition of Fremont Plastics and Plastique, both acquired at reasonable prices, we now have a technical packaging solutions business approaching $100 million in annual revenues with above industry-average profit margins," said Esco CEO Vic Richey in a news release. "We now have a solid foothold in Europe and have added a new complementary technical packaging solution."

Technimark is looking to aggressively grow its newly formed medical business, Technimark Healthcare, fast tracked with the acquisition of specialty medical component maker Ci Medical Technologies last December. With the acquisition, Technimark adds five locations (PA, TX, Puerto Rico; UK; Mexico) and 550 employees bringing its facility count to 14 worldwide. Ci Medical had been owned by Altaris Capital Partners since 2012. "It's obviously a fast-growing market. It's one that fits well with our global strategy," said Brad Wellington, CEO of Technimark. "We wanted to diversify our business, get into medical to continue to grow at a fast rate organically."

Organic initiatives included the build out of clean rooms in Suzhou, China; Aachen, Germany; and Asheboro, North Carolina over an 18-month period, Wellington indicated. Acquiring Ci accelerated the healthcare strategy. "They have deep experience in the medical field including regulatory and systems knowledge, extensive clean room capacity and a blue chip customer list," Wellington said. "We liked the chemistry" and regard the acquisition as a "cornerstone platform addition."

Technimark was acquired by **Pritzker Private Capital** in April 2014. In addition to health care, the company also serves the packaging products, electronics, automotive, power tools, consumer products, furniture, and textiles markets. Technimark recently doubled the space of plants in China and Germany and opened in Mexico as part of its global growth plans. The company had 2015 sales of approximately $475 million.

"Our goal here is, frankly, to build a world-class business, a multibillion-dollar business and the opportunity to do it with quality management," said J.B. Pritzker, who heads Pritzker Group. "I really do think that the base business at Technimark is one that just allows us to go everywhere in the world, grow with our customers, literally to build factories near our customers to help serve them and then to serve the surrounding potential customers that we don't already have." Technimark expects to continue its acquisition growth strategy but "...is being very selective...because it is such a frothy valuation market," said Michael Nelson, an investment partner with Pritzker. "That being said, it is also a great time because there's lots of valuable properties in the market. And where an acquisition would better serve our customers through a new technology or a new geographic presence, we would look at it," he said.

In March 2016, Molded Rubber & Plastic Corp. (MRPC) acquired **Johnson Precision**, a move to expand its capabilities and market reach. Johnson Precision is a contract molder of medical devices that have high-precision molded components and sub-assemblies. With the acquisition, MRPC adds injection mold making and a Class 8 clean room, bringing its count to seven clean rooms company-wide. In addition, Johnson Precision's joint venture in Malaysia provides an entry to new business opportunities in the Pacific Rim. Medical device components and assemblies provider MRPC specializes in clean room molding with a

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

focus on liquid silicone rubber (LSR), two-material, and micro-molding. The company plans to continue its growth strategy of increased sales and acquisitions, according to MRPC CEO Greg Riemer in a *Plastics News* interview. The company acquired LSR molder ETI in 2012.

NPI/Medical received development capital from **Tonka Bay Equity Partners** in November 2015. NPI is a manufacturer of highly engineered, precision injected molded components, primarily for the medical device and life sciences markets. The company's New Product Introduction (NPI) capabilities help accelerate speed-to-market. Capabilities include quick turn manufacturing for short runs, production injection molding for high volume programs, a full service tool room, and multiple clean rooms. The company has also developed expertise in medical clean room assembly, packaging, and Liquid Silicone Rubber (LSR) capabilities.

Tonka Bay has partnered with CEO Randy Ahlm to accelerate growth and leverage its experience in precision manufacturing in the MedTech industry. Ahlm said, "With the deep and talented management team at NPI, we're well positioned to leverage the company's quick turn manufacturing for short runs to production injection molding for high volume programs." Kory Kutchmarek, Director at Tonka Bay said, "We are pleased to partner with Randy and NPI's management team." He added, "The company's commitment and focus to helping their customers with speed to market provides substantial growth opportunities within the MedTech market as components become increasingly complex."

Automotive

Automotive plastics suppliers have benefited from unit production growth and lightweighting strategies that are increasing per-vehicle content for plastic components. North American light vehicle sales reached 17.4 million units in 2015, besting the previous record set in 2000.
2016 is expected to continue on pace, say industry experts; however, growth is forecasted to peak in the coming years. IHS Automotive expects U.S. auto sales will reach 17.8 million in 2016 and peak at 18.2 million in 2017 as rising interest rates and higher vehicle prices lead to a leveling off in consumer demand. The previous record of 17.4 million vehicles was set in 2000.

North American production will increase steadily to 19 million by the end of the decade. Much of that growth will come in Mexico, according to Mike Jackson, IHS Automotive's director of North America vehicle production forecasting, where lower labor costs are enticing automakers to locate manufacturing operations.

According to Laurie Harbour, CEO of Harbour Results, sales volumes are forecasted to flatten out going forward to 2022, and some predict a potential recession in 2019 when volumes could dip. "Essentially, it's a plateau period," Harbour told attendees at the Plastics in Automotive conference in January sponsored by *Plastics News*. Harbour identified market dynamics impacting plastics processors.

- Changing product mix. The industry is shifting to a low volume, high vehicle mix. By 2018, 80 percent of the vehicles on the road will be under 100,000 units in production, Harbour estimates, which will drive piece price up for plastic parts suppliers. "The growing mix is becoming dramatically more complex for suppliers and requires more expensive tooling," Harbour said.

- Shorter life cycles. Changing consumer demand and regulations on fuel efficiency standards are shortening vehicle life cycles. "The life cycles of vehicles are getting shorter—dropping precipitously, from about three years in 2015 to an anticipated two years in 2019," said Harbour. "Plastics processors are expanding their floor space to hold the tooling and secondary equipment needed to handle the model changes coming at a rapid rate." "Shorter life cycles mean dramatically less time to amortize the mold, the automation put into a plant to assemble that product, and the capital invested in the facility," Harbour said. "So suppliers are trying to recover that investment through higher piece prices."
- Self-driving cars and potential market disruption.

"The industry is great right now. Unfortunately, so many companies are busy meeting volumes, they are forgetting about all the things they need to do to be efficient and profitable to sustain the downturn that may come," commented Harbour. "We all know the industry is going to adjust. It's not going to be a 2008 adjustment but will be some kind of adjustment. It has to."

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

Harbour said it's time for suppliers to keep watch but not wait to develop longer-term strategies that align product and process to demand. The industry is at an inflection point, Harbour indicated, and manufacturing efficiency needs to be a priority.

Selected Recent Investment Activity

Plastic Omnium announced in December 2015 it was acquiring **Faurecia's Exterior Systems business** (bumpers and front-end modules) for an enterprise value of EUR 665 million. The business generates EUR 2 billion sales and employs 7,700 people in 22 industrial sites in Germany, France, Spain, Slovakia, North and South America. Germany accounts for half of sales where Plastic Omnium has no production site for this activity.

"This acquisition will give a new dimension to Plastic Omnium and enable it to better serve its customers around the world. By its size, it significantly strengthens the portfolio and the technological potential of Plastic Omnium to meet environmental challenges for light-weighting and for the reduction of emissions from motor vehicles," said CEO Laurent Burelle. "Plastic Omnium thus demonstrates its willingness to move closer to its major clients and assert its technological and innovative leadership in order to provide an even more globalized offer to automakers."

Plastic Omnium produces fuel tanks, bumpers, diesel emissions systems, and plastic structural components. Recent organic initiatives include the construction of two new U.S. plants last year, with two additional facilities to be built this year and next in Mexico. With the acquisition and its recent investment in North America, Plastic Omnium's automotive sales will approach $8.7 billion. The company reported revenue of $6.5 billion in 2014.

Burelle says he's counting on gas tanks, exterior components, and a robust U.S. economy for much of Plastic Omnium's growth. "I would like to move a little bit quicker in the U.S., if there is room for us."

In January 2016, US Farathane Corporation acquired **Boston Plastics**, a Shanghai-based manufacturer of injection molded components and assemblies for the automotive, industrial, and consumer end markets. About half of the company's business is molding automotive parts such as interior components, with the remainder split between industrial and other markets. "We originally partnered with The Gores Group to expand our global footprint and this latest acquisition enables us to directly participate in the large and growing China market," said US Farathane CEO Andy Greenlee. "The acquisition will enable us to increase US Farathane's immediate reach into the China market, while simultaneously opening up new business with direct OEMs," said Boston Plastics general manager Eddie Chia.

The transaction follows the January 2016 purchase of **Tepso Plastics Mex., S.A. De C.V.** for approximately $60 million. With the acquisition, US Farathane adds automotive injection molding components and assembly plants in Monterrey and Romita, Mexico. The acquired facilities manufacture interior and exterior trim, instrument panel components, powertrain components, assemblies, and black functional parts for a variety of Tier 1 auto plant suppliers. Technical capabilities include insert molding, color matching for interior trim, and extensive press-side robotics, as well as assembly, heat stake, hot stamp, heat transfer, and ultrasonic welding. Tepso Plastics is headquartered in Apodaca, Mexico and will operate as a subsidiary of US Farathane. Commenting on the acquisition, Greenlee stated, "Tepso is the perfect fit for our expansion into Mexico, and we are excited to complete this acquisition as a key part of our strategy to provide global solutions to our customers." US Farathane has been backed by **The Gores Group** since 2014.

Aerospace

Global trends toward weight reduction and fuel efficiency are sustaining demand for lightweight materials. Component suppliers with expertise in advanced materials are benefiting as engineering and high-performance plastics have successfully displaced metals, traditional composites, and other plastics in a growing number of aerospace applications.

Demand drivers, notably strong and resilient passenger traffic growth and robust projected demand for new aircraft, particularly from the emerging economies, support a visible runway for growth. Passenger traffic is outperforming GDP

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

growth, according to a Global Market Forecast released by Airbus, which predicts demand for new passenger and freighter aircraft will swell to 32,600 by 2034—more than double the 19,000 in service today.

Selected Recent Investment Activity

In May 2015, TransDigm Group Incorporated (NYSE:TDG) acquired the **Aerospace Business** of **Pexco** (Pexco), a portfolio company of Odyssey Investment Partners, for approximately $496 million, inclusive of $160 million in tax benefits to be realized over a 15-year period beginning in 2015. Pexco manufactures extruded plastic interior parts with a strong presence on the Boeing 787 and the 737 Sky Interior. A vast majority of Pexco's revenues are sole source, the majority is proprietary, and nearly all revenue comes from the commercial transport market. The company employs approximately 300 people from two U.S. locations in Yakima, Washington and Huntington Beach, California.

The acquisition will allow TransDigm to enhance its pricing power and complement its suite of existing products. Commenting on the transaction, TransDigm CEO W. Nicholas Howley, stated, "Pexco Aerospace is a leading proprietary aerospace manufacturer with attractive positions on all active Boeing platforms and a significant and growing commercial aftermarket. The commercial aftermarket is currently approaching 35 percent of revenue but we expect that percentage to grow to close to 60 percent over the next five years as the Boeing 787 and Boeing 737 Sky Interior become an increasing share of the installed fleet. These products fit well with our overall business strategy." According to analyst estimates, the acquisition is expected to add ~$100 million in annual revenues and initially $15 - $20 million of EBITDA.

Liberty Hall Capital Partners acquired **AIM Aerospace** in February 2016, which will serve as a growth platform for the sponsor's "newly launched strategy to build a fully-integrated, diversified composites supplier through organic investments and strategic acquisitions." AIM supplies composite ducting, substructural, and interiors parts for the commercial aerospace industry, focused on the highest value Boeing platforms, including the 737, 777, and 787. Major customers include The Boeing Company, Kawasaki Heavy Industries, Spirit AeroSystems, and B/E Aerospace. The transaction was valued at $220 million.

"The commercial aerospace market continues to enjoy strong, long-term secular growth, driven by demand for next generation aircraft," said Rowan Taylor, Liberty Hall's founding Partner. "With this unprecedented growth in aircraft deliveries, aircraft manufacturers are increasingly transitioning from metallic to composite materials that provide weight savings and other beneficial properties that increase fuel efficiency and durability. As a private equity firm focused exclusively on the aerospace and defense industry, we see significant opportunities in this segment of the industry and believe that AIM Aerospace possesses an ideal combination of capabilities, customer relationships, and a proven track record of success. The growing demand for composites provides an opportunity for AIM to serve as the platform investment for Liberty Hall to build a fully-integrated, diversified composites supplier."

AIM Aerospace is Liberty Hall's second platform acquisition. Liberty Hall formed Accurus Aerospace Corporation in 2013 and has since completed three strategic acquisitions with Precise Machining & Manufacturing (2013), McCann Aerospace Machining (2014), and LaCroix Industries (2015). Accurus is a fully-integrated Tier II aerostructures supplier.

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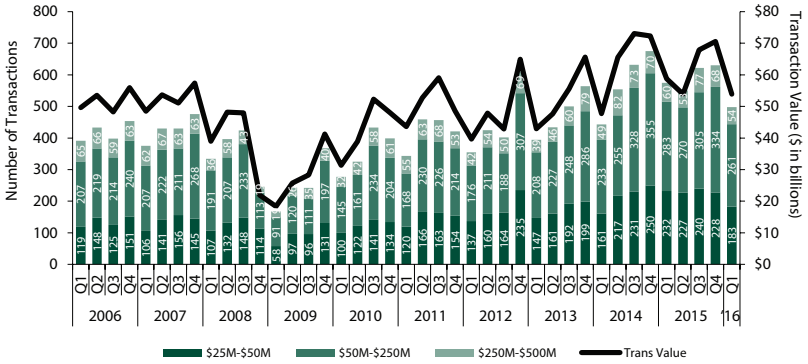
SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

Overall M&A Activity

Mergers & Acquisitions Activity

Middle Market M&A Activity

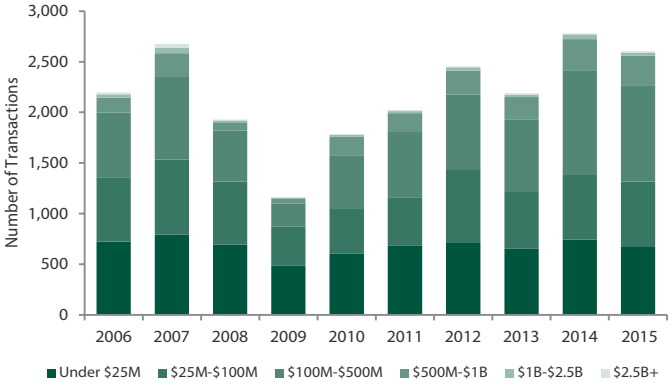


Based on announced deals, where the primary location of the target is in the United States.
Middle market enterprise values between $25 million and $500 million.

SOURCE: S&P Capital IQ.

Private Equity Transaction Activity*

Transaction Count by Deal Size

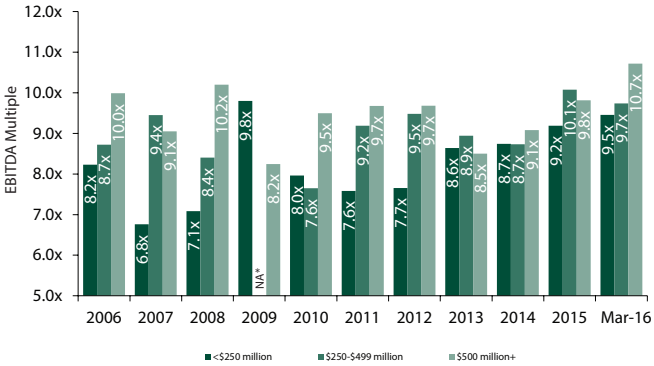


**Buyout activity only*

SOURCE: PitchBook.

Trends in Valuation

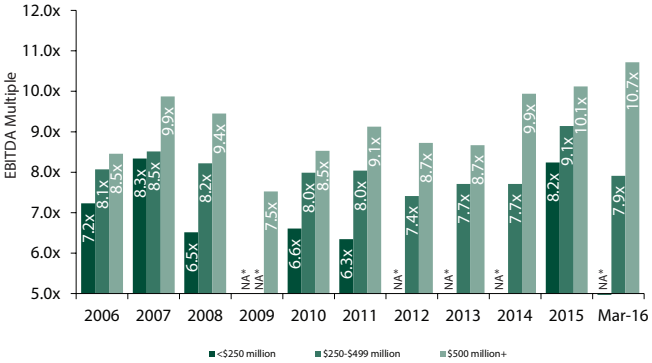
Transactions with Strategic Buyers



**NA: Data not reported due to limited number of observations for period.*

SOURCE: Standard & Poors LCD.

Transactions with Financial Buyers

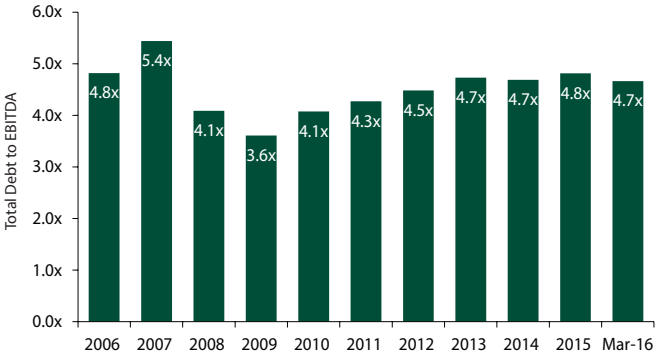


**NA: Data not reported due to limited number of observations for period.*

SOURCE: Standard & Poors LCD.

Acquisition Financing Trends

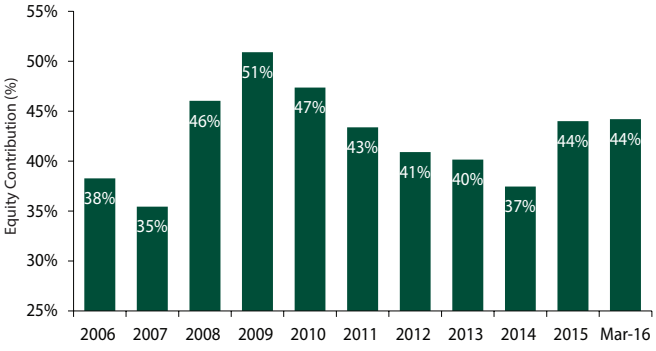
Total Leverage



Middle market enterprise values between $25 million and $500 million.

SOURCE: Standard & Poors LCD.

Equity Contribution



Middle market enterprise values between $25 million and $500 million.

SOURCE: Standard & Poors LCD.

Plastics & Packaging M&A Activity

SELECTED TRANSACTIONS IN PLASTIC PRODUCTS

PLASTIC PRODUCTS

In January 2016, **National Molding** acquired **Ven-Tel Plastics Corporation**, in a move to diversify into the medical market. The company specializes in high-precision, clean-room molding, thin wall molding, and complex 3D plastic components. Ven-Tel operates 50 injection molding machines ranging from 80 to 550 tons of clamping force in its 107,000 square foot facility located in Largo, Florida. The business will become the Medical Division of National Molding. About 75 percent of Ven-Tel's business is in medical molding, said National Molding CEO Tom Linton in a release, calling the acquisition "strategically very important" for the company.

National Molding has operations in Miami Lakes, Florida; Ambridge, Pennsylvania; and Shanghai. The company produces more than a billion automotive parts a year. The Shanghai facility is exclusively focused on automotive work, while its other plants are also automotive-intensive. National Molding stated its plans to accelerate growth, "We believe we can double the size of the [Ven-Tel] operation in the same building and using the same footprint," Minton said. National Molding is backed by **Taglich Private Equity** and **Calvert Street Capital Partners**, which acquired the company in 2008 for $24 million.

In January 2016, **US Farathane Corporation** completed the acquisitions of Shanghai-based **Boston Plastics** and Mexico-based **Tepso Plastics Mex., S.A. De C.V.** For more information, refer to Page 8 of the Insider.

Pexco acquired **Scientific Plastics Corporation** in January 2016 and **Precision Extrusion** in December 2015. For more information, refer to Page 5 of the Insider.

In December 2015, **Newell Rubbermaid** (NYSE: NWL) announced it is acquiring **Jarden Corporation** (NYSE: JAH) in a transaction valued at $17.9 billion. Jarden's Plastic Solutions division specializes in high-volume, precision injection molding plastic solutions for the medical, consumer packaging, and high-end industrial markets. Newell Rubbermaid is well known for its Rubbermaid product line that is split into two segments: Commercial Products and Home Solutions. The Commercial Products segment provides products for skincare, washroom, waste, material handling, cleaning, food service, safety, and agriculture applications. The Home Solutions segment provides rubber and plastic organization containers used throughout the home. The new company will be called Newell Brands and will have approximately $16 billion in revenue. Newell Rubbermaid shareholders will own approximately 55 percent of Newell Brands. **Transaction Multiples: 2.1x Revenue and 20.0x EBITDA**

In November 2015, **Tonka Bay Equity Partners** acquired **NPI/Medical** from Spell Capital Partners. NPI/Medical provides precision tooling and injection molded parts in medical device manufacturing. NPI has a full service tool room and multiple clean rooms. It also does medical clean room assembly, packaging, and has liquid silicone rubber capabilities. Kory Kutchmarek, Director at Tonka Bay commented on the investment, "We are pleased to partner with Randy Ahlm (CEO) and NPI's management team. The company's commitment and focus to helping their customers with speed to market provides substantial growth opportunities within the MedTech market as components become increasingly complex." NPI/Medical was spun off and retained by **Spell Capital Partners** when it sold **Spectrum Plastics** to Pexco in 2013.

In October 2015, **NN Inc.** (NasdaqGS: NNBR) acquired **Precision Engineered Products** (PEP) from **Nautic Partners** and **The Jordan Company** for approximately $620 million. PEP manufactures precision engineered metal and plastic components for the medical (42 percent of revenue), electrical (33 percent), transportation (15 percent), general industrial (6 percent), and aerospace/defense (4 percent). The geographic revenue mix consists of 84 percent North America, 6 percent Asia, 2 percent Europe, and 8 percent rest of world. PEP generated LTM (6/30/15) revenue of $245.3 million and an EBIT margin of 21.8 percent. NN CEO Richard Holder commented on the transaction, "The addition of the P.E.P. business into our portfolio is a transformative step in creating a diversified industrial company that serves a variety of end markets and delivers consistent results through the economic cycle. P.E.P. strengthens our technical capabilities and provides us with additional dynamic platforms to support outgrowth of our end markets. P.E.P.'s focus on the medical, electrical, and aerospace end markets and delivery of world class precision and technology to their customers aligns perfectly with our strategic plant." **Transaction Multiple: 2.5x Revenue**

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

Plastics & Packaging M&A Activity

SELECTED TRANSACTIONS IN PLASTIC PRODUCTS

In July 2015, **Bowles Fluidics Corporation** acquired **DLH Industries** to form **dlhBOWLES**. Both companies manufacture components for handling automotive fluids, such as hoses and nozzles for windshield washer systems. DLH has expanded into other automotive areas including fully assembled actuation systems for turbochargers, and vacuum brake-assist assemblies. The company reportedly generated approximately $50 million in annual revenue prior to the transaction. DLH was founded in 1975, is located in Canton, Ohio, and employs about 600 people. Morgenthaler Private Equity was the owner of Bowles Fluidics prior to the transaction and will back the merged company dlhBOWLES. Commenting on the transaction, John Saxon, CEO of dlhBOWLES, said, "Given both companies' reputations for providing innovative and high quality engineered plastics and fluid flow solutions, as well as strong customer service and support, we believe our businesses are an excellent fit."

In May 2015, **TransDigm Group Incorporated** (NYSE:TDG) acquired the aerospace business of **Pexco** (Pexco), a portfolio company of **Odyssey Investment Partners**. For more information, refer to Page 9 of the Insider.

In May 2015, **Tenere** acquired **Mountain Molding**. Founded in Longmont, Colorado in 1976, Mountain Molding provides precision injection molding, in-house tool making, and contract manufacturing for the medical, security, pet products, consumer products, electronic equipment, and defense industries, among others.The acquisition broadens Tenere's plastics offering, and enhances their services and capabilities allowing customers to go from product design and prototyping to production quickly and seamlessly. Tenere designs and manufactures metal and plastic components and assemblies for OEMs in diverse end markets. **The Watermill Group** acquired Tenere in 2012. Tenere CEO Greg Adams commented, "By combining forces, we look forward to offering all customers greater flexibility and an enhanced menu of capabilities to better meet their needs at any stage of the product life cycle." Mountain Molding was formerly backed by **Arcady Capital Company**, which acquired the business in 2012.

PACKAGING

In April 2016, **Novolex** announced it is acquiring **Heritage Bag Co.**, adding six manufacturing facilities and significantly growing its film and sheet sales. Heritage manufactures plastic trash bags, can liners, and food bags for institutional and commercial customers in the healthcare, food service, hospitality, education, building services, transportation, industrial, and office building markets. The company operates manufacturing sites in Los Angeles, Salt Lake City, Dallas, Cincinnati, Atlanta, and Philadelphia. *Plastics News* ranked Heritage 22nd among North American film and sheet makers with annual sales of $380 million. The company was founded in 1973 and is based in Roanoke, Texas.

Heritage Bag will be the sixth add-on acquisition for Novolex, following most recently **Wisconsin Film & Bag** (WFB) purchased last September, a diversification play into custom film and packaging. The acquisition also furthers Novolex's sustainability efforts. WFB expanded into sustainable and recycled materials with its own converting and recycling plants. The Shawano, Wisconsin-based company has about 175 employees and estimated sales of $62 million according to the *Plastics News* ranking.

Novolex was acquired in 2012 by **Wind Point Partners**. The company employs more than 6,000 people from 43 locations in North America and generates annual sales of $2.3 billion. Novalex ranked 13th among North American film and sheet makers with estimated sales of $600 million.

In February 2016, **Olympus Partners** acquired **G.E.T. Enterprises** from **Valesco Industries**, **Shoreview Industries**, as well as other shareholders. G.E.T. Enterprises is a supplier of molded melamine-formaldehyde and related serving items that are used by commercial hospitality and institutional foodservice providers such as TGI Fridays, Buffalo Wild Wings, and Boston Market. In 2015, the company acquired foodservice supplier Clipper Mill and Bugambilia International known for its resin-coated aluminum displayware. G.E.T. was founded in 1984 and is located in Houston, Texas. Olympus plans to use G.E.T. as an acquisition platform, said Mike Horgan, a partner at Olympus, in an interview with *Plastics News*. Horgan commented, "G.E.T. is a market leading player in the

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

SELECTED TRANSACTIONS IN PACKAGING

evolving food service industry that provides its customers differentiated products with a clear path to continued growth. We look forward to working with the very talented management team lead by CEO Heidi Modaro to help support the growth of the company through continued investment in the business and through strategic acquisitions."

In February 2016, **ESCO Technologies** (NYSE: ESE) acquired **Plastique Group Limited** (Plastique). Plastique manufactures thermoformed plastic and precision molded pulp fiber packaging primarily serving pharmaceutical, personal care, and various specialty end markets. The company is headquartered in Tunbridge Wells, England, with manufacturing locations in Nottingham, England and Poznan, Poland. Plastique reported annualized sales of approximately $35 million. The business will become part of ESCO's Thermoform Engineered Quality (TEQ) operating subsidiary.

The acquisition is expected to provide immediate access to new customers and new geographies in both Europe and North America for both its existing thermoformed packaging solutions as well as its new pulp fiber packaging capabilities, offering a "greener", sustainable packaging solution. Plastique also expands TEQ's growth opportunities within its existing medical device and pharmaceutical customers.

Randy Loga, President of TEQ, commented, "Adding Plastique's capabilities to our product portfolio creates an exciting and meaningful growth opportunity for TEQ by combining our unique technologies, product offerings, and wide-spread geographies. Additionally, having both a North American and European presence is a prerequisite to being a top-tier supplier to the larger global medical device and pharma customers, and we are confident we can exploit these new opportunities."

The transaction follows the $10.5 million purchase of **Fremont Plastics** in November 2015. Founded in 1980 and based in Fremont, Indiana, Fremont Plastics manufactures thermoformed plastic products such as sterile and nonsterile custom medical trays and in-mold decorative inserts. Commenting on the transaction, Loga said, "We were attracted to Fremont because of their exciting and compatible product line, especially the chance to add more thermoform medical products (like light handle covers) to the products we already manufacture."

In December 2015, **M&Q Packaging Corporation** was acquired by **Capital Partners**. Founded in 1956 and based in Schuylhill Haven, Pennsylvania, M&Q Packaging manufactures nylon, polyester, and polyamide high-temperature thermoplastic packaging products including film, sheet, bag, pouch, casing, liner, and lay-flat tubing for the foodservice, medical, meat processing, and aerospace industries. M&Q is Capital Partners' first investment in plastic packaging. M&Q President Mike Schmal commented, "They (Capital Partners) are looking to use M&Q as a platform company. Our intent over the near future is to look for other companies to add on to M&Q in order to add value to the current shareholders. In addition, I think their network and expertise in the boardroom also add value to the company."

In December 2015, **RPC Group plc** agreed to acquire **Global Closure Systems** (GCS) for approximately EUR 650 million. Global Closure Systems is a leading manufacturer of closure and dispensing systems and the 14th largest injection molder in Europe, according to *Plastics News Europe*. The company offers a wide range of plastic products for the global food and beverage, household, healthcare, and personal care industries. RPC is acquiring GCS from PAI Partners SAS, which created the platform in 2005 from the spinoff of the beverage and specialty closure business of Crown Holdings. The company reported sales of EUR 590.5 million and EUR 82.8 of EBITDA in 2014.

The acquisition of GCS will create a significantly enhanced European platform in rigid plastic packaging, combining two of the largest European injection molders, in addition to polymer-buying capabilities and other potential synergies which are expected to generate approximately EUR 15 million in annual cost savings. RPC CEO Pim Vervaat commented on the transaction, "The proposed acquisition of GCS Group provides a compelling opportunity for RPC to expand its product offering with an extensive range of highly complementary closure and dispensing solutions and technologies."

RPC is a leading plastic products design and engineering company for packaging and non-packaging markets. The company is headquartered in the United Kingdom and has 89 manufacturing locations and 18 design and engineering

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

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centers in 24 countries, employing more than 15,000 people. RPC reported revenue of $2.1 billion in fiscal 2015.
Transaction Multiples: 1.1x Revenue and 7.9x EBITDA

In December 2015, **PSB Industries** (ENXTPA: PSB) acquired **Topline Products Company** to grow its North American presence. Based in Wayne, New Jersey, Topline Products provides cosmetics, fragrance, and skin care packaging solutions for brands such as Mary Kay, Sisley, Burberry, Revlon, and the L'Oréal Group and generated approximately $75 million in revenue in 2015. The company employs approximately 500 people from manufacturing facilities in the United States, Mexico, and China, in addition to four strategic sales offices in New York, Paris, Sao Paulo, and Shanghai. Topline will be integrated into PSB's Luxury and Beauty segment.

With over $200 million in combined revenue, the deal creates the third-largest molded beauty packaging producer worldwide and only one of two players with production in Europe, North America, and Asia, said PSB Strategy and Business Development Manager Pierre-Antoine Henry. Henry commented on the transaction, "We want to be a key player with local production capabilities in North America, in both the beauty packaging and healthcare markets." With the acquisition, PSB Beauty will have three manufacturing facilities in the United States, two in Mexico, five in France, and one in China. "This new acquisition project, in line with our Ambition 2020 plan, would enable PSB Industries to reinforce its footprint in North America as well as enter Asia and South America," noted PSB CEO Olivier Salaun, in a news release.The transaction follows the purchase of C+N Packaging in 2014.

In December 2015, **Charter NEX Films** acquired **Optimum Plastics** from **Huron Capital Partners** for an undisclosed amount. Optimum Plastics is a leading domestic and international engineered films producer for high performance institutional food, industrial, medical, automotive, and consumer market segments. Backed by **Pamplona Capital Management**, Charter NEX Films is a North American leader in manufacturing monolayer, coextruded, and barrier films for flexible packaging applications in consumer goods, food and beverage, foodservice, industrial, lawn and garden, medical, and pet food. Optimum CEO Kevin Keneally commented, "We have long known that these two companies belong together. Our customers will gain access to a greater breadth of technical and operational capabilities, and together we can bring unique new products to market." As a result of the acquisition, Keneally will become President and Chief Commercial Officer of the combined company, which will be led by Charter NEX Chief Executive Officer, Kathy Bolhous.

Optimum was previously backed by Huron Capital Partners, which acquired the business in October 2014.

In December 2015, **ProAmpac** acquired **Coating Excellence International** (CEI) from **Mason Wells**. CEI was incorporated in 1996 and is located in Wrightstown, Wisconsin with approximately $250 million in revenue. CEI is a flexible packaging and technical product company that manufactures specialized wide web extrusion coating and laminating film, foil, paper, board, and nonwovens. ProAmpac is a global flexible packaging company backed by **Wellspring Capital Management**, formed through the merger of Prolamina Corporation and Ampac Packaging completed in August 2015. Operating under the Prolamina, Ampac, and Tulsack brands, the company offers flexible packaging solutions for the food, pet care and medical markets, along with secure packaging for the transport of cash and valuables, and retail shopping bags.

John Morningstar, a Managing Partner of Wellspring who leads the firm's activities in the packaging sector, said, "We are very pleased by the successful combination of Prolamina and Ampac, The leading flexible packaging company we created, ProAmpac, is ideally positioned for success and we are delighted to support the acquisition of CEI and other attractive growth initiatives the company will pursue in the future."

In October 2015, **Amcor Rigid Plastics USA**, a subsidiary of Amcor Limited (ASX: AMC), acquired the preform manufacturing business of **Encon** for $55 million in cash. Amcor will acquire manufacturing assets and intellectual property, known as Eco-Groupe Inc, with the purchase. The business has four plants—the largest in Dayton, Ohio, with others in Texas, Washington, and Hawaii. With the acquisition, Amcor will gain Eco-Groupe's technology portfolio, which includes a modular molding system called Viper, which allows for multiple size preforms to be injected simultaneously, and Eco-Pod, a mobile

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

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manufacturing system. The Encon preform business generated revenues of approximately $110 million in 2014. Commenting on the acquisition, Amcor CEO and Managing Director, Ron Delia said: "This acquisition provides an excellent opportunity to acquire a well-capitalized business at an attractive price. Given the manufacturing overlap, the acquisition will deliver considerable operating synergies and generate strong returns for shareholders."

In October 2015, **Olympus Partners** acquired **Liqui-Box Corporation** from **The Sterling Group** in an estimated $300 million transaction. Liqui-Box is a supplier of bag-in-box flexible packaging for the global dairy, beverage, and bulk food markets. Its products are used for applications such as coffee drinks, fountain beverage syrup, and pumpable liquid foods such as concentrates and sauces. The company is headquartered in Richmond, Virginia and has about 500 employees. **Transaction Multiple: ~8.6x EBITDA (E)**

In October 2015, **Carr Management** (CMI) completed the acquisition of **Hillside Plastics**. Located in Turners Falls, Massachusetts and founded in 1967, Hillside Plastics manufactures standard and custom blow-molded HDPE and polypropylene containers used in food, chemical, household, automotive, and industrial markets. Backed by **Behrman Capital**, Carr Management is a manufacturer of HDPE plastic bottles for the food and beverage, industrial, and nutraceutical industries in the United States. The company operates six manufacturing facilities in Maine, Pennsylvania, Delaware, Kentucky, and California. Grant Behrman, a Managing Partner at Behrman Capital commented on the firm's strategy for Carr, "When we acquired CMI in 2014, we saw an opportunity to accelerate the company's growth through the acquisition of other high-quality blow molding manufacturers. The addition of Hillside gives CMI a complementary product offering for growing end markets and enables both companies to access customers in new geographies."

In October 2015, **Consolidated Container Co.** (CC) acquired **Precision Plastics**, filling a gap in the company's Midwest footprint. Located in Chippewa Falls, Wisconsin, Precision Plastics supplies HDPE plastic containers to the bottled water market for the dairy industry. The Wisconsin facility will become CC's 55th rigid packaging manufacturing plant. CC's other upper Midwest blow molding plants are in Harvard, Illinois and Moorhead, Minnesota. "We can easily integrate those size deals into our systems and processes," said Pete Bitter, vice president of finance, in a *Plastics News* interview. The bolt-on acquisition "to our core business is in a strategic location with a strategic customer base," Bitter said.

CC has been backed by **Bain Capital** since 2012. The company manufactures rigid plastic packaging solutions with estimated revenue of $820 million (including the Precision Plastics operation). CC CEO Sean Fallmann commented, "The acquisition of Precision Plastics is a good strategic fit with CCC's existing water market platform allowing for greater leverage of our capabilities and expertise while expanding our geographic footprint to better serve our growing customer base."

In October 2015, **Transcontinental Inc.** (TSX: TCL.A) acquired **Ultra Flex Packaging Corporation** (UFP) for consideration of $80 million in cash at closing plus an earn out based on specified financial targets. Brooklyn, New York-based UFP is a manufacturer of flexible packaging products for the food and beverage, tobacco, lidding, consumer goods, and bag and pouch markets. The business generated approximately $72 million in revenue. Transcontinental CEO Francois Olivier commented, "This acquisition builds on our Capri Packaging acquisition last year and is part of our strategy to ensure our future growth path through diversification." With the addition of UFP, Transcontinental doubles its packaging revenue. Montreal, Canada-based Transcontinental reported revenue of $1.5 billion in fiscal 2015. **Transaction Multiples: 1.1x Revenue and 6.7x EBITDA**

In September 2015, **Schweitzer-Maudit International Inc.** (NYSE:SWM) purchased **Argotec** from **Wind Point Partners** for $280 million in cash. Argotec manufactures highly engineered urethane films with value-added properties such as durability, UV protection, heat resistance, and optical clarity for demanding specialty applications in surface protection, glass lamination, and medical products. High-value niche applications include vehicle paint protection, glass lamination for superior strength, medical wound care, and other industrial uses. Commenting on the transaction, Argotec CEO Guy Broadbent, stated, "We are proud of our growth under Wind Point Partners and our continued product leadership serving the demanding technical needs

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

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of our customer base." Schweitzer-Maudit CEO Frederic Villoutreix reflected on the transaction, "We are pleased to announce the acquisition of Argotec as another key milestone in the transformation of SWM. This represents our fourth diversification transaction including the late 2013 acquisition of DelStar. Argotec is a highly attractive asset and its core competencies and attributes align well with SWM. Much like DelStar, Argotec is a technology and quality leader in resin-based rolled goods with a strong competitive position. Argotec films, which are complementary to our current extruded resin production capabilities, generate strong margins and are used in a diverse set of attractive niche market segments, such as paint protection, glass lamination, medical, and graphics. This acquisition offers solid growth prospects and further diversification for SWM." T**ransaction Multiple: 2.4x Revenue and ~10.0x EBITDA (E).**

In August 2015, **CC Industries** purchased **Selig Group**. Selig is a global manufacturer of tamper-evident, induction cap and closure liners with manufacturing operations in Illinois, Canada, Switzerland, and the United Kingdom. The company was founded in 1889 and provides solutions for the food, beverage, pharmaceutical, healthcare, personal care, and industrial industries. Selig CEO Steve Cassidy commented, "We are thrilled with our new owners. CCI will be an ideal partner to support management for the next phase of Selig's growth. With CCI's operations and financial expertise, we will continue to focus on improving Selig's industry leading quality manufacturing, innovation product development, and exemplary customer service."

CC Industries is a private equity firm founded in 1986 that holds and manages the Crown Family's operating companies. Selig is the firm's second investment in the packaging sector. In July 2015, CCI acquired Rockford, Illinois-based **J.L. Clark**, a maker of seal liners and plastic and metal containers with annual sales of about $77 million. "We're long-term holders. We're interested in the industry in general and we think we can help Selig prosper and grow," said David Rubin, general counsel for CC Industries. "Certainly we would like to grow in this industry." Selig was previously owned by **Behrman Capital** which acquired the company in 2005.

In July 2015, J**arden Corporation** (NYSE: JAH) acquired **The Waddington Group** from **Olympus Partners** for $1.35 billion. The Waddington Group is a leading manufacturer of single-use drinkware, dinnerware, servingware, cutlery, and custom packaging products. Customers include caterers, restaurants, supermarkets, and other foodservice operations in need of disposable solutions. The transaction provides a meaningful addition to Jarden's portfolio while creating opportunities in cross-selling, broadening the distribution platform particularly in the B2B category, and deepening Jarden's talent bench. Waddington will add approximately $800 million to Jarden's 2016 revenues and will be a part of its Branded Consumables business segment.

"Olympus has been a great partner to The Waddington Group by supporting our expansion into new markets and new geographies through aggressive growth capital and strategic and targeted acquisitions," commented Mike Evans, CEO of The Waddington Group. "With Olympus' support, we have been able to grow the business close to 300% over the past three years and we are well-positioned to continue our strong growth and momentum." Olympus Partners acquired WNA in 2012. **Transaction Multiple: ~1.7x Revenue and 9.6x EBITDA**

In April 2015, **CID Capital** recapitalized **Fit & Fresh**, a producer of plastic insulated food storage containers for work, school, baby, gatherings, and diet and fitness applications. The company's product portfolio includes lunch bags, containers, bag kits, ice packs, portion control products, healthy food snackers, hydration products, and fitness accessories. Fit & Fresh President Larry Wesson commented, "Our team has done a tremendous job of designing and bringing to market innovative new products that consumers love to use when taking food with them on-the-go. This transaction will allow us to continue accelerating the growth we've been experiencing since we introduced the Fit & Fresh brand in 2006. We are looking forward to working with CID as we capitalize on the opportunities to grow our business."

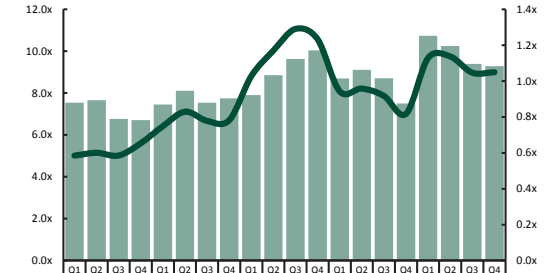
Scot Swenberg, Managing Director at CID Capital, added "Fit & Fresh exemplifies the characteristics CID looks for in a partner. The company has a leading brand, a strong reputation for high quality products and service, and the vision to build long term value. We are very excited about our partnership with the Fit & Fresh team."

SOURCE: S&P Capital IQ, PitchBook, Plastics News, Equity Research; Company Filings, and public data.

Industry Valuations

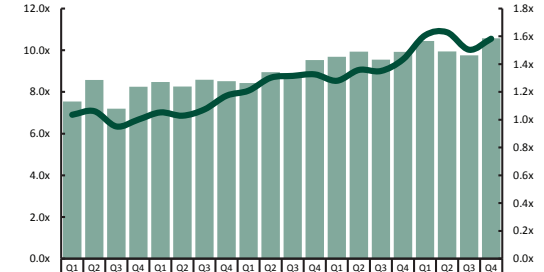
Relative Valuation Trends

Plastic Products



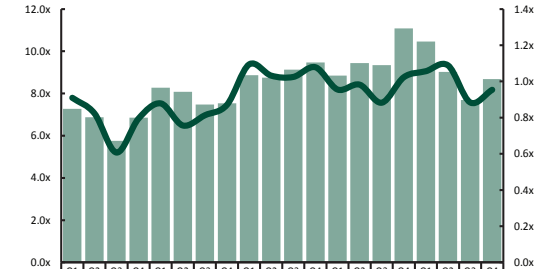
	Q1 11	Q2 11	Q3 11	Q4 11	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13	Q2 13	Q3 13	Q4 13	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
EV/EBITDA	7.5x	7.7x	6.8x	6.7x	7.5x	8.1x	7.5x	7.7x	7.9x	8.9x	9.6x	10.0	8.7x	9.1x	8.7x	7.5x	10.7	10.2	9.4x	9.3x
EV/Revenue	0.6x	0.6x	0.6x	0.7x	0.7x	0.8x	0.8x	0.8x	1.0x	1.2x	1.3x	1.2x	0.9x	1.0x	0.9x	0.8x	1.1x	1.1x	1.0x	1.0x

Rigid Containers



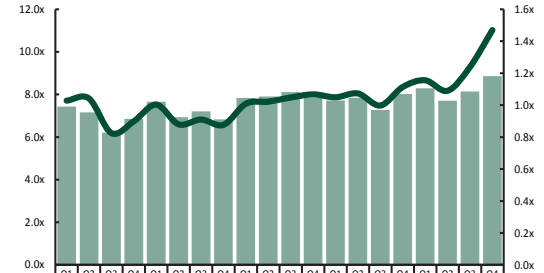
	Q1 11	Q2 11	Q3 11	Q4 11	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13	Q2 13	Q3 13	Q4 13	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
EV/EBITDA	7.5x	8.6x	7.2x	8.3x	8.5x	8.3x	8.6x	8.5x	8.4x	9.0x	8.8x	9.5x	9.7x	9.9x	9.5x	9.9x	10.4	9.9x	9.8x	10.6
EV/Revenue	1.0x	1.1x	1.0x	1.0x	1.1x	1.0x	1.1x	1.2x	1.2x	1.3x	1.3x	1.3x	1.3x	1.4x	1.4x	1.4x	1.6x	1.6x	1.5x	1.6x

Flexible Packaging



	Q1 11	Q2 11	Q3 11	Q4 11	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13	Q2 13	Q3 13	Q4 13	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
EV/EBITDA	7.3x	6.9x	5.8x	6.9x	8.3x	8.1x	7.5x	7.5x	8.9x	8.8x	9.1x	9.5x	8.9x	9.4x	9.3x	11.1	10.5	9.0x	7.7x	8.7x
EV/Revenue	0.9x	0.8x	0.6x	0.8x	0.9x	0.8x	0.8x	0.9x	1.1x	1.0x	1.0x	1.1x	1.0x	1.0x	0.9x	1.0x	1.1x	1.1x	0.9x	1.0x

Paper and Board



	Q1 11	Q2 11	Q3 11	Q4 11	Q1 12	Q2 12	Q3 12	Q4 12	Q1 13	Q2 13	Q3 13	Q4 13	Q1 14	Q2 14	Q3 14	Q4 14	Q1 15	Q2 15	Q3 15	Q4 15
EV/EBITDA	7.4x	7.2x	6.2x	6.9x	7.7x	6.9x	7.2x	6.8x	7.8x	7.9x	8.1x	7.8x	7.7x	7.8x	7.3x	8.0x	8.3x	7.7x	8.1x	8.9x
EV/Revenue	1.0x	1.0x	0.8x	0.9x	1.0x	0.9x	0.9x	0.9x	1.0x	1.0x	1.0x	1.1x	1.0x	1.1x	1.0x	1.1x	1.2x	1.1x	1.2x	1.5x

BGL Plastics & Packaging indices defined on Page 28.
Source: S&P Capital IQ.

Industry Valuations

Relative Valuation Trends

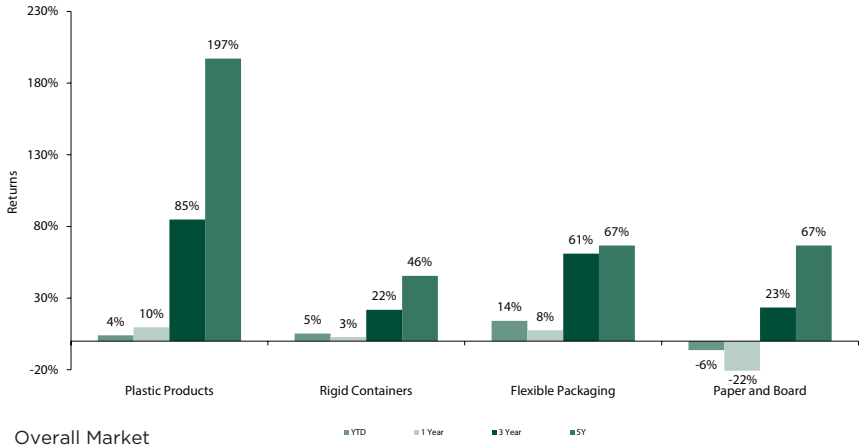
($ in millions, except per share data)			Current	% of	Market	Enterprise	TTM Enterprise Value /		Total Debt/	TTM	TTM Margins	
Company Name	**Country**	**Ticker**	**Stock Price (1)**	**52W High**	**Capitalization (2)**	**Value (3)**	**Revenue**	**EBITDA**	**EBITDA**	**Revenue**	**Gross**	**EBITDA**
PLASTIC PRODUCTS												
Jarden Corp.	United States	NYSE:JAH	$58.62	97.4%	$12,826.6	$17,909.2	2.1x	***18.5x***	***6.6x***	$8,603.9	31.7%	11.2%
Compagnie Plastic Omnium SA	France	ENXTPA:POM	32.54	91.1%	4,782.0	5,209.7	0.9x	7.7x	1.9x	5,441.1	16.7%	11.1%
Intertape Polymer Group Inc.	Canada	TSX:ITP	14.29	91.2%	836.0	981.2	1.2x	8.6x	1.4x	781.9	21.5%	13.6%
Nolato AB (publ)	Sweden	OM:NOLA B	27.24	82.2%	716.6	685.9	1.2x	7.7x	0.2x	559.8	17.4%	15.3%
Myers Industries Inc.	United States	NYSE:MYE	12.34	63.0%	364.6	550.3	0.9x	8.7x	3.1x	601.5	29.9%	10.5%
Balda AG	Germany	XTRA:BAD	2.92	72.1%	172.1	80.2	0.8x	8.9x	0.0x	92.8	60.7%	9.3%
Carclo plc	United Kingdom	LSE:CAR	1.86	77.6%	123.2	161.8	1.0x	8.8x	3.0x	175.4	55.5%	11.2%
Unique Fabricating, Inc.	United States	AMEX:UFAB	12.49	87.3%	120.2	150.8	1.1x	10.1x	2.1x	143.3	23.7%	10.4%
Median			**$13.39**	**84.8%**	**$540.6**	**$618.1**	**1.0x**	**8.7x**	**1.7x**	**$580.7**	**26.8%**	**11.2%**
Mean			**$20.29**	**82.7%**	**$2,492.7**	**$3,216.1**	**1.1x**	**8.6x**	**1.7x**	**$2,050.0**	**32.1%**	**11.6%**
RIGID PLASTIC CONTAINERS												
Amcor Limited	Australia	ASX:AMC	$11.05	97.7%	$12,796.0	$16,540.5	1.7x	11.9x	3.0x	$9,350.5	20.6%	14.2%
Rexam PLC	United Kingdom	LSE:REX	8.72	96.8%	6,141.5	7,989.5	1.4x	10.5x	2.8x	5,788.2	42.5%	13.4%
AptarGroup, Inc.	United States	NYSE:ATR	77.36	97.1%	4,867.4	5,167.5	2.2x	11.3x	1.8x	2,317.1	34.8%	19.7%
Berry Plastics Group, Inc.	United States	NYSE:BERY	35.37	94.1%	4,262.1	10,175.1	1.9x	12.0x	***7.3x***	5,273.0	18.5%	16.1%
RPC Group Plc	United Kingdom	LSE:RPC	10.87	89.0%	3,290.2	3,954.2	2.0x	14.8x	2.9x	2,168.9	45.5%	13.1%
Silgan Holdings Inc.	United States	NasdaqGS:SLGN	52.47	90.4%	3,168.8	4,583.2	1.2x	9.6x	3.2x	3,764.0	14.7%	12.7%
Median			**$23.21**	**95.4%**	**$4,564.8**	**$6,578.5**	**1.8x**	**11.6x**	**2.9x**	**$4,518.5**	**27.7%**	**13.8%**
Mean			**$32.64**	**94.2%**	**$5,754.3**	**$8,068.3**	**1.7x**	**11.7x**	**2.8x**	**$4,777.0**	**29.4%**	**14.9%**
FLEXIBLE PACKAGING												
Sealed Air Corporation	United States	NYSE:SEE	$49.51	88.7%	$9,703.5	$13,936.3	2.0x	12.7x	4.2x	$7,031.5	36.8%	15.6%
Bemis Company, Inc.	United States	NYSE:BMS	51.02	94.2%	4,830.9	6,161.0	1.5x	10.6x	2.4x	4,071.4	21.5%	14.2%
Tredegar Corp.	United States	NYSE:TG	15.54	64.4%	507.4	567.3	0.6x	6.5x	1.2x	896.2	15.9%	9.7%
AEP Industries Inc.	United States	NasdaqGS:AEPI	61.41	65.4%	313.6	514.8	0.5x	5.0x	2.1x	1,119.5	17.3%	9.3%
Median			**$50.27**	**77.0%**	**$2,669.2**	**$3,364.1**	**1.1x**	**8.5x**	**2.2x**	**$2,595.5**	**19.4%**	**12.0%**
Mean			**$44.37**	**78.1%**	**$3,838.9**	**$5,294.8**	**1.1x**	**8.7x**	**2.5x**	**$3,279.6**	**22.9%**	**12.2%**
PAPER AND BOARD												
WestRock Company	United States	NYSE:WRK	$37.19	55.6%	$9,354.1	$15,094.5	1.2x	7.4x	2.9x	$12,547.8	20.0%	16.2%
Packaging Corporation of America	United States	NYSE:PKG	60.18	76.2%	5,611.3	7,759.1	1.4x	7.0x	2.1x	5,741.7	21.2%	19.4%
Sonoco Products Co.	United States	NYSE:SON	47.95	97.7%	4,843.0	5,815.4	1.2x	9.3x	1.8x	4,964.4	18.7%	12.4%
Graphic Packaging Holding Company	United States	NYSE:GPK	12.80	83.8%	4,131.4	5,952.0	1.4x	8.2x	2.6x	4,160.2	19.0%	17.4%
Multi Packaging Solutions International Lim	United States	NYSE:MPSX	15.52	82.5%	1,202.1	2,109.0	1.2x	9.4x	4.3x	1,707.1	21.2%	13.1%
Median			**$37.19**	**82.5%**	**$4,843.0**	**$5,952.0**	**1.2x**	**8.2x**	**2.6x**	**$4,964.4**	**20.0%**	**16.2%**
Mean			**$34.73**	**79.2%**	**$5,028.4**	**$7,346.0**	**1.3x**	**8.2x**	**2.7x**	**$5,824.2**	**20.0%**	**15.7%**

NOTE: Figures in bold and italic type were excluded from median and mean calculation.
(1) As of 4/8/2016.
(2) Market Capitalization is the aggregate value of a firm's outstanding common stock.
(3) Enterprise Value is the total value of a firm (including all debt and equity).
SOURCE: S&P Capital IQ.

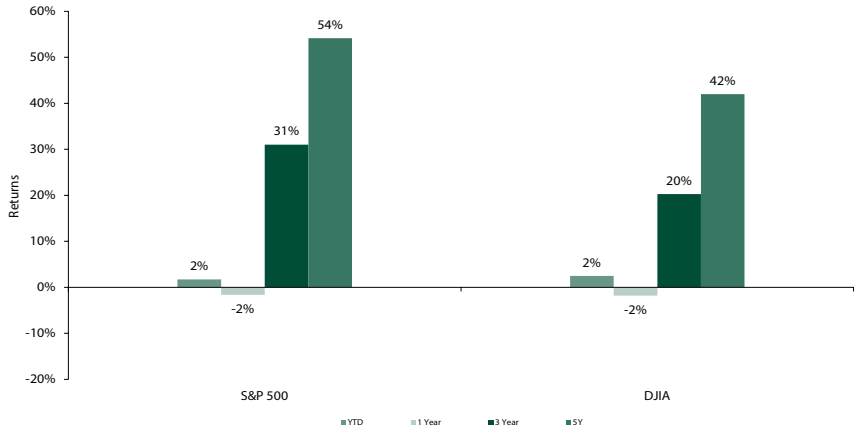
Industry Valuations

Sector Performance

By Sector

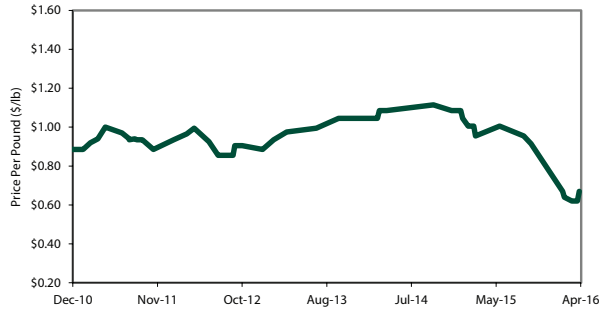


Overall Market

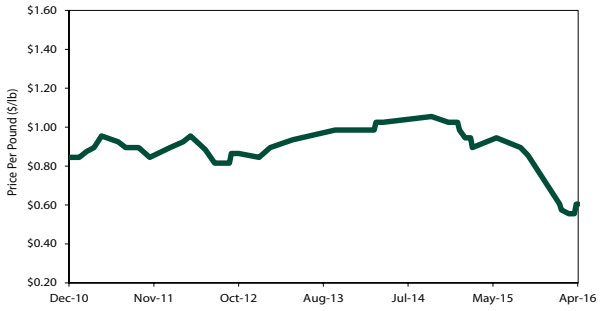


Source: S&P Capital IQ.
As of 4/8/2016.

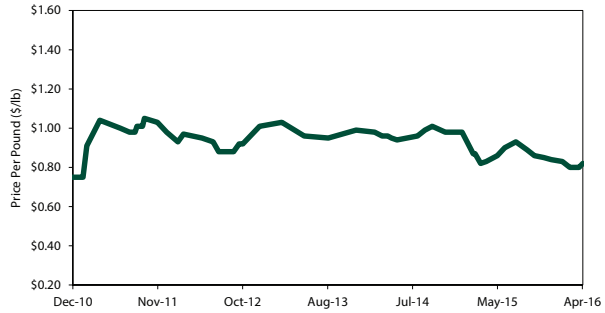
HDPE



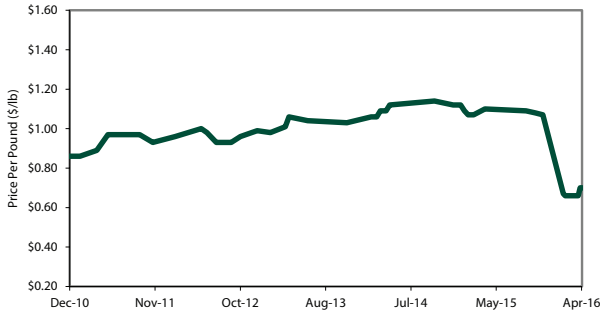
LLDPE



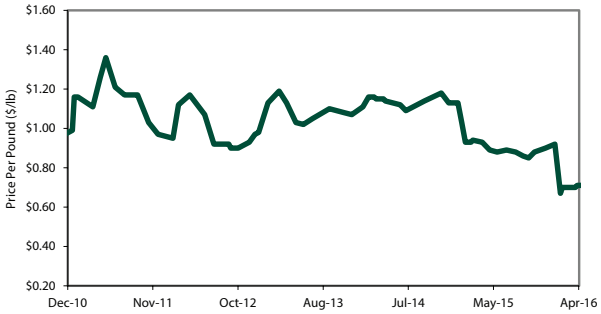
PET



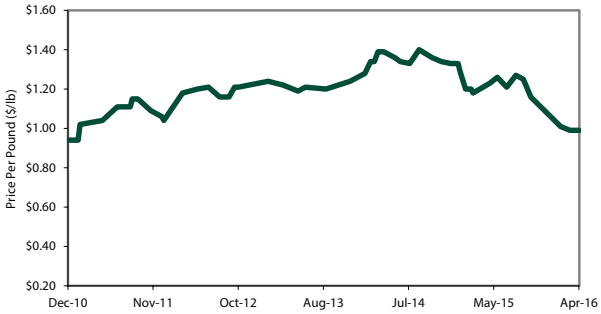
PVC



PP



PS



Source: Plastics News.

Global Plastics & Packaging

Processing Expertise

- PET, PVC, PEEK, HDPE, UHMWPE
- Injection Molding
- Compression Molding
- Blow Molding
- Thermoforming
- Film and Sheet Extrusion
- Pipe, Profile, and Tube Extrusion
- Structural Foam
- Resin/Compounding/ Additives
- Rubber Compounding
- Mold/Tool Production
- Recycling

End Market Expertise

- Flexible and Rigid Packaging
- Medical and Pharmaceutical
- Industrial and Manufacturing
- Automotive and Transportation
- Consumer Products
- Food and Beverage
- Building Products
- Distribution

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- Offices in Chicago, Cleveland, and Philadelphia
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- Deep industry experience across core sectors of focus, including: Business Services, Consumer, Environmental & Energy Services, Healthcare & Life Sciences, Industrials, and Real Estate

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Acquisitions & Divestitures
Public & Private Mergers
Special Committee Advice
Strategic Partnerships & Joint Ventures
Fairness Opinions & Fair Value Opinions

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Acquisitions
Recapitalizations
Dividends

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Restructurings
Sales of Non-Core Assets or Businesses
§363 Auctions

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