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Investment Banking

Cyclical Concerns Spur Increased Interest in Packaging M&A

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Cyclical Concerns Spur Increased Interest in Packaging M&A

Influx of private capital into the packaging industry has resulted in fewer publicly traded companies and intense competition for platform assets.

Investors are increasingly turning to the packaging industry for attractive M&A opportunities. Packaging M&A multiples have increased approximately 25%, or two turns (EV/EBITDA), since 2015 as the industry's combination of favorable cash flows and relatively stable end-markets has continued to garner interest from strategic and financial acquirers.

William Blair has been at the forefront of the surge in packaging M&A activity. We have already advised on 12 packaging transactions in 2019—eight in the United States and four in Europe. Based on insights gathered from these transactions and our ongoing conversations with business owners and investors throughout the industry, we examine the most powerful trends that are driving packaging dealmaking activity.

Premium for Healthcare and Other Noncyclical Assets Expands

As we enter the later stages of the current economic expansion, the packaging market continues to be an increasingly attractive industry for investment. The demand for packaging assets is driven in part by the industry's generally stable economic profile, strong cash flows, and relatively fragmented competitive landscape. Broadly speaking, the packaging market has witnessed median valuations widen from 8.1x LTM EBITDA in 2015 to 10.0x LTM EBITDA in 2019.

On a more granular level, we are witnessing the valuation spread between noncyclical and cyclical packaging companies continuing to widen. Packaging assets that serve noncyclical end-markets, most notably healthcare and food, are commanding a premium to packaging assets that focus on cyclical end-markets, such as automotive and industrial.

In 2015, the spread between M&A multiples for noncyclical and cyclical packaging assets was 0.4x. As investors continue to factor into their models a higher probability of a slowdown or recession in the next few years, that same spread has expanded to 1.7x in 2019.

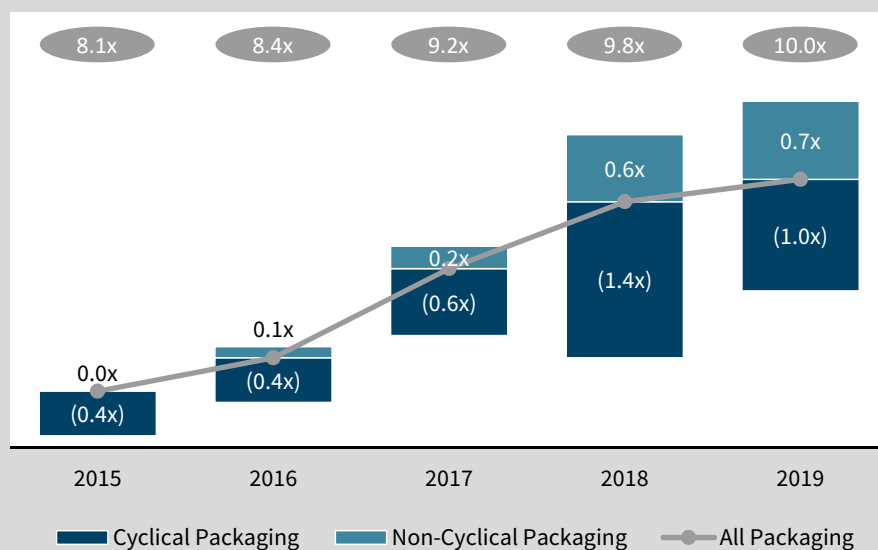
Within the broader movement toward noncyclical end-markets, healthcare packaging companies have become particularly attractive acquisition

targets. In addition to the inherent noncyclical nature of the end-market—one driven by long-term contracts and regulation—the healthcare industry enjoys favorable secular tailwinds resulting from an aging and increasingly health-conscious population and an inelastic pricing structure, which contribute to stable and attractive financial profiles within the industry.

These dynamics led to several recent William Blair medical packaging sale processes receiving strong interest from financial and strategic acquirers. We advised Clariant (SWX:CLN), on the pending sale of its Healthcare Packaging International (HCP) business to Arsenal Capital Partners for CHF 308 million (13.2x FY2018 adjusted EBITDA) in July 2019. Clariant's HCP business provides

M&A Multiples: Non-cyclical vs. Cyclical Packaging

As we move into the later stages of the current economic expansion, packaging companies focused on non-cyclical end markets, such as healthcare and food, have become increasingly attractive targets for financial sponsors.

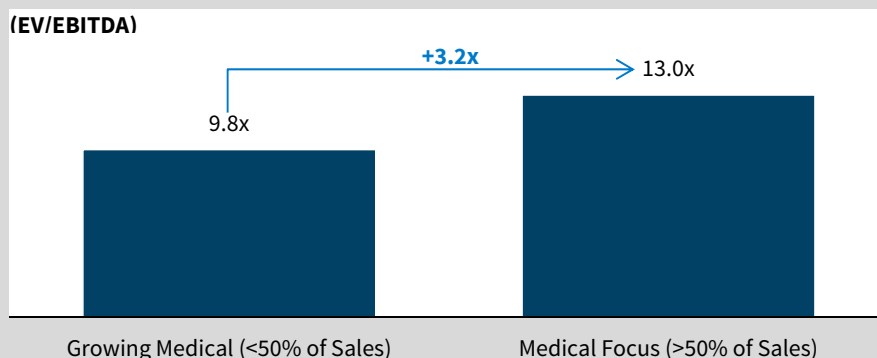


Sources: William Blair market analysis and Dealogic

Note: Non-cyclical packaging represents transactions where the selling company operates in the food or medical end markets

Healthcare Halo Highlights Non-cyclical Attractiveness

The attractiveness of non-cyclical end markets is particularly strong for packaging companies focused on the healthcare industry, which benefits from powerful regulatory requirements and demographic growth drivers. Companies that generate the majority of sales from medical clients are achieving average M&A multiples 3.2 turns (3.2x EV / EBITDA) higher than companies less focused on medical end markets.



Sources: William Blair market analysis and Dealogic

acquisition of Bemis and Berry Global's acquisition of RPC Group. As a result of this transaction activity, corporate divestitures are also becoming more prevalent. In some cases, companies are divesting assets to comply with regulatory requirements; in other cases, companies are divesting noncore assets to focus the strategy of the pro forma business. Private-market valuation premiums are driving additional divestiture activity as carve-outs can present low-risk opportunities for boards to create shareholder value.

William Blair has been at the forefront of this divestiture activity. So far in 2019, we have advised on four divestiture transactions (three sell-side and one buy-side) involving several key players in the packaging-related industry—Amcor, Bemis, Berry Global, and Clariant.

Financial Sponsors Place a Premium on Platform Assets

Financial sponsors have exhibited a willingness to pay up for packaging platform assets of size that support multifaceted organic and M&A growth opportunities. Financial sponsors consider many variables when targeting a potential platform investment; chief among them are a strong management team, quality operations, and a proven track record of successfully executing and integrating acquisitions.

Recent acquisitions by Pamplona Capital Management and Kohlberg & Company are two examples of financial sponsors targeting and executing a packaging platform strategy. We sold Loparex to Pamplona Capital Management in June 2019. Three weeks later, Pamplona

active healthcare packaging solutions (e.g., desiccants) to the pharmaceutical, nutraceutical, and diagnostic end-markets. In addition, we advised global packaging giant Amcor on two medical-packaging divestitures: the sale of three medical flexible packaging plants (Bemis Healthcare Packaging Europe) to private equity firm Kohlberg & Company and the sale of select North American medical packaging assets to Tekni-Plex. Both transactions received robust interest and valuations well above the long-term median for packaging assets.

Robust Private Valuations Shape Dealmaking Dynamics

The number of publicly traded packaging companies has decreased by 40% since 1999. This trend, which has significantly affected M&A activity across the industry, has been driven by multiple factors. Many large publicly traded packaging companies are pursuing M&A to drive growth to

support elevated valuation levels. Meanwhile, many promising companies are forgoing an IPO and instead electing to remain private, where there is a valuation premium and less focus on quarterly earnings and near-term initiatives.

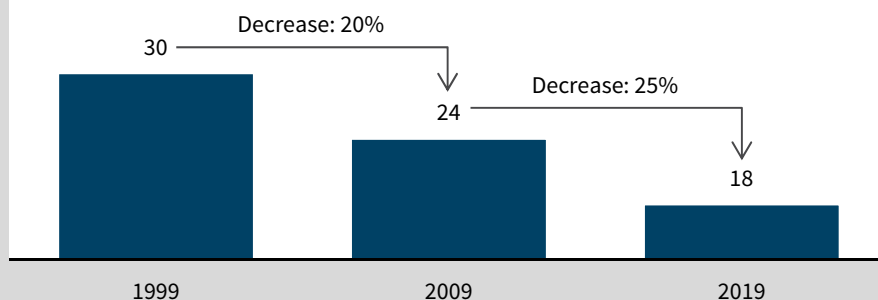
The attractiveness of the packaging industry to financial sponsors has resulted in an influx of private capital, which has driven valuations higher than the public markets. As a result, many packaging companies that would have historically considered an IPO are now remaining private as the appeal of the public markets has been minimized. Private packaging companies today are garnering valuations about 1.5 turns higher than their public counterparts.

Mega transactions between publicly traded companies in the packaging industry are also driving the decline in the number of publicly traded companies in the space. Recent high-profile examples include Amcor's

Packaging Companies Retreat from the Public Market

Since 1999, the number of publicly traded packaging companies has declined by 40%. In addition to consolidation, this trend is being driven by private-market premiums, which are causing many packaging companies to remain private.

United States - Listed Publicly Traded Packaging Companies



Sources: Capital IQ and William Blair market analysis

announced that it was also acquiring Loparex's competitor, Infiana, in a highly complementary transaction. In addition, we sold Bemis Healthcare Packaging Europe (BHPE) to Kohlberg & Company, which it combined with its July 2019 acquisition of Nelipak Corporation, a leading medical device and pharmaceutical packaging company.

Focus on Sustainability Forces Packaging to Adapt

With 300 million tons of plastic waste produced annually and much of it ending up in landfills or the oceans, consumers and governments around the world are demanding a greater commitment to sustainability from companies across the value chain. More than 125 countries have now passed laws and introduced regulations to limit the manufacture, import, sale, use, and/or disposal of selected single-use plastics. These requirements are forcing packaging companies to adapt by balancing sustainability and recyclability with ease of use and cost-efficiency.

The amount of packaging used for e-commerce has emerged as one of the

primary focus areas for sustainability improvements. In response to consumer demands for greater sustainability, especially among millennials, Amazon has launched several efforts to reduce the amount of packaging used in shipping, including expanding its Frustration-Free Packaging (FFP) program in August 2019. Now all items larger than 18" x 14" x 8" or heavier than 20 pounds sold through Amazon must be designed and certified as ready-to-ship (Tier 1—100% recyclable and easy to open; or Tier 2—Ships In Own Container). These programs, which focus on reducing packaging waste and improving customer experience,

are requiring packaging companies to evolve their approach toward e-commerce packaging.

Sustainability is one of the factors that acquirers look for in packaging companies, and targets that have developed innovative solutions to reducing waste are able to command premium valuations. William Blair advised Revolution Plastics on its July 2019 sale to Arsenal Capital Partners. Revolution Plastics' closed-loop model for producing, collecting, and recycling plastic film puts it at the forefront of addressing one of the most critical trends in the packaging industry. Sustainability also played an important role in Automated Packaging Systems' (APS) August 2019 sale to Sealed Air; William Blair acted as the sell-side advisor. The acquisition strengthens Sealed Air's position in the e-commerce, fulfillment, and food packaging markets by adding APS's bagging products, which can be used to reduce the amount of excess packaging traditionally used in select e-commerce and fulfillment applications.

To learn more about these and other trends that are driving the growth of the packaging industry, please contact us.

Financial Sponsors Pay a Platform Premium

Financial sponsors have been aggressive in their pursuit of packaging assets of scale.

10.7x

Median EV / EBITDA multiple for packaging transactions above \$350 million total enterprise value

1.3x

EV / EBITDA multiple premium for sponsor-acquired packaging assets vs. targets acquired by strategic buyers

Sources: William Blair market analysis and Dealogic; data reflects transactions since January 2018

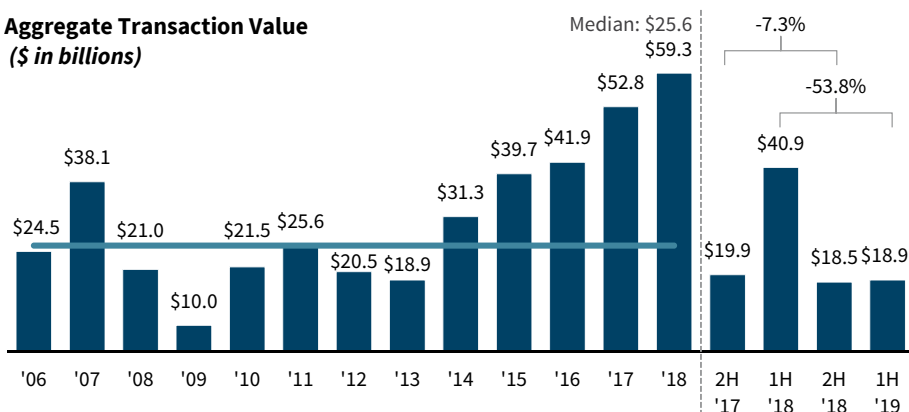
Packaging Market Analysis

We look behind the numbers to examine the market dynamics that are driving dealmaking trends in the packaging industry.

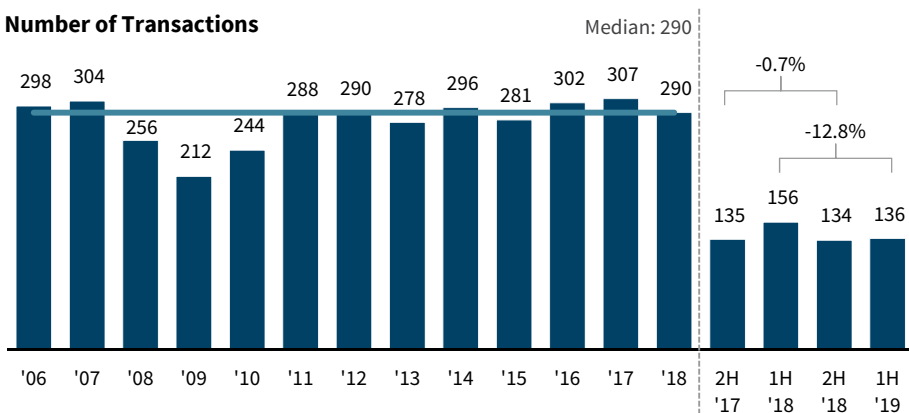
Packaging M&A - Global Value, Volume, and Valuations

M&A activity in the packaging industry continued to accelerate in 2018 as both strategic buyers and financial sponsors aggressively pursue opportunities to consolidate the fragmented industry. 1H'18 activity was elevated due to several transactions with values over \$1 billion (e.g., Amcor / Bemis, Kapstone / Westrock, Signode / Crown). Thus far in 2019, aggregate transaction value and number of transactions have pulled back, while valuation multiples continue to rise. The median EV/EBITDA multiple for transactions completed in the first half of the year was 9.9x, well above the median level of 8.3x since 2006.

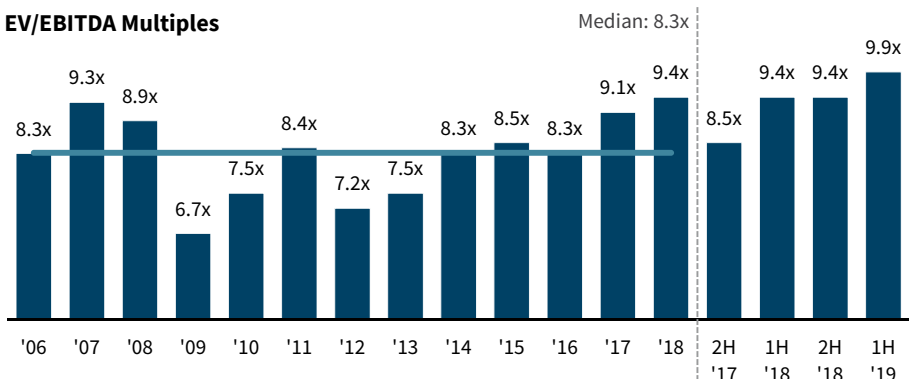
Aggregate Transaction Value (\$ in billions)



Number of Transactions



EV/EBITDA Multiples

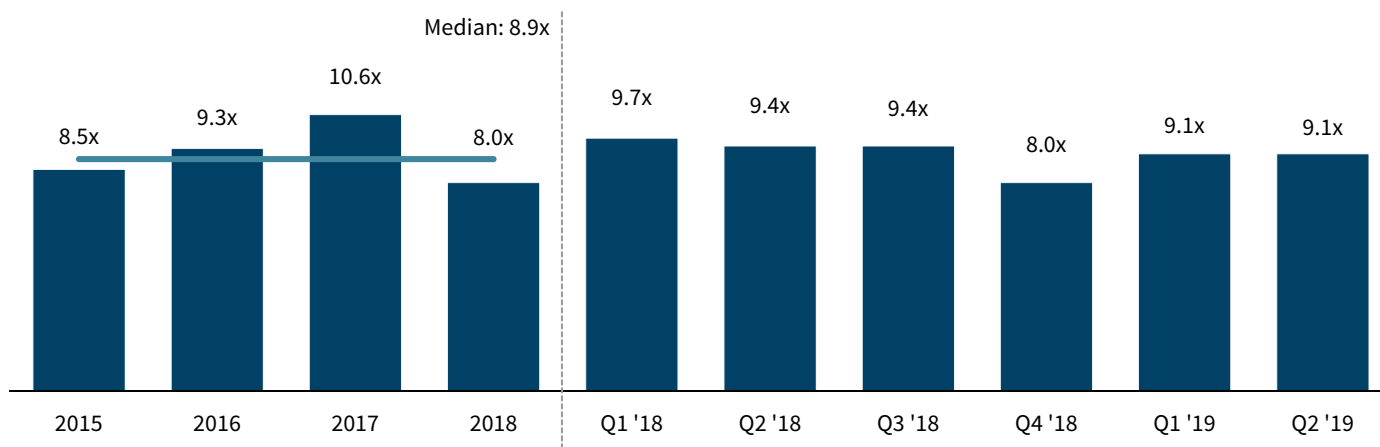


Sources: Dealogic and William Blair market analysis; aggregate volume and value includes all announced deals

Public Company Valuations in Packaging

Despite pulling back from 2017's robust levels, valuations for publicly traded packaging companies are trading near the industry median since 2015 of 8.9x. The lower valuation levels observed at the end of 2018 were driven by a broad market decline in December 2018, as well as weakness in the valuation levels of paper packaging businesses.

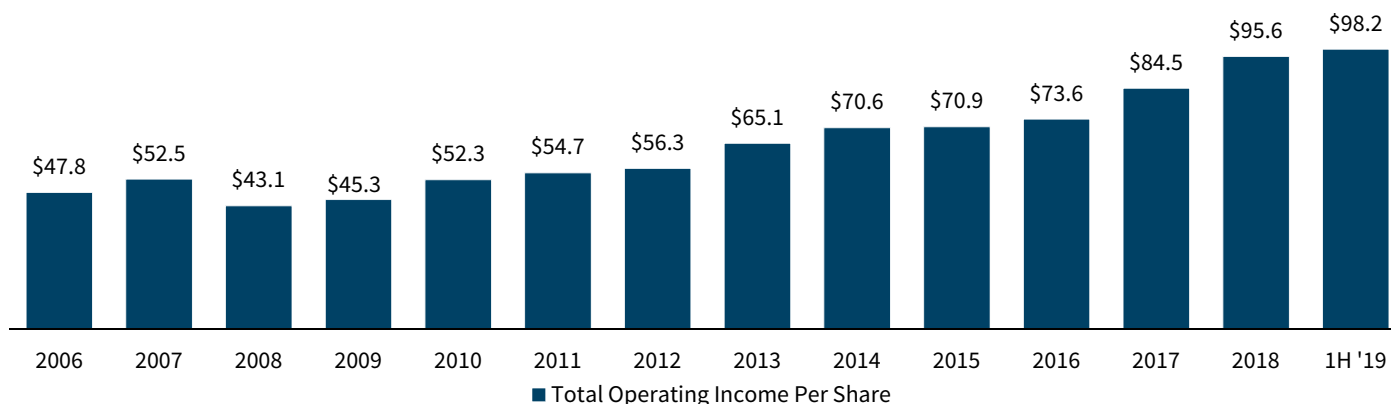
To generate growth and sustain valuations above long-term levels, packaging companies are becoming increasingly aggressive in their acquisition efforts. The public and private valuation trends enclosed herein further highlight the dynamic developing in the market with privately held businesses receiving a comparatively higher valuation on an EV / EBITDA basis to its public counterparts.



Source: Capital IQ and William Blair market analysis;
Median EV/LTM EBITDA multiples for publicly traded companies shown on pages 15 and 18 of this report

Earnings Continue to Improve

Earnings in 2018 and 1H'19 for William Blair's group of publicly traded packaging companies continued to expand, more than doubling since the lows of 2008 and 2009. In 2019 thus far, earnings growth has been driven by a continued focus on cost reduction initiatives and operational excellence strategies. The operational initiatives have been partially offset by slower top line growth, which is driving a relatively flat performance when comparing 1H'19 to 2018. Uncertainty relating to international trade and dynamic geopolitical and resin pricing environments may begin to place pressure on earnings growth going forward.



Sources: Capital IQ and William Blair market analysis

Drawing on our deep sector expertise, including 12 signed / closed transactions within 2019 Year-To-Date⁽¹⁾, and the strength of our relationships with buyers around the world, William Blair has built a leading packaging investment banking franchise. Business owners turn to us for outstanding execution for their M&A and capital raising objectives.

2019 YTD transactions include:

<p>CHF 308,000,000</p> <p>CLARIANT Healthcare Packaging International</p> <p>has agreed to be acquired by</p> <p>ARSENAL CAPITAL PARTNERS Pending</p>	<p>Not Disclosed</p> <p>DUO II PLAST YOUR SUCCESS IN OUR FILM</p> <p>has been acquired by</p> <p>PARAGON PARTNERS</p> <p>August 2019</p>	<p>€347,000,000</p> <p>Bemis Healthcare Packaging Europe</p> <p>European Flexible Packaging Assets has been acquired by</p> <p>KOHLBERG & COMPANY Nelipak healthcare packaging</p> <p>August 2019</p>
<p>Not Disclosed</p> <p>WARBURG PINCUS</p> <p>has acquired</p> <p>Pregis Protective Packaging Solutions August 2019</p>	<p>Not Disclosed</p> <p>LOPAREX</p> <p>has been acquired by</p> <p>PAMPLONA CAPITAL MANAGEMENT August 2019</p>	<p>\$510,000,000</p> <p>Automated PACKAGING SYSTEMS</p> <p>has been acquired by</p> <p>Sealed Air Re-imagine™ August 2019</p>
<p>Not Disclosed</p> <p>Revolution BELIEVE IN BETTER PLASTICS</p> <p>has been acquired by</p> <p>ARSENAL CAPITAL PARTNERS July 2019</p>	<p>\$215,000,000</p> <p>amcor Select North American Medical Flexible Packaging Assets</p> <p>has been acquired by</p> <p>TEKNIPLEX June 2019</p>	<p>\$2,527,600,000</p> <p>MCC MULTICOLOR GLOBAL LABEL SOLUTIONS</p> <p>has been acquired by</p> <p>WS Packaging Group a portfolio company of <i>Platinum Equity</i> February 2019</p>

**William Blair
By the Numbers***

400+

*bankers globally with local
cultural knowledge*

20

offices worldwide

\$335 billion+

*in M&A advisory and
financing transactions*

(1) Year-to-date (YTD) period as of September 2019

* In the past five years as of
June 30, 2019

Spotlight on Recent William Blair Transactions



Healthcare Packaging International (HCP) was a business unit of Clariant (SWX:CLN) focused on the attractive active healthcare packaging (AHP) market with manufacturing facilities in the U.S.A., France, China, and India employing ~600 individuals. HCP's product portfolio includes drop-in, packet, and bag desiccants, as well as canisters, capsules, and vials used in AHP applications.

- Arsenal was attracted to HCP's breadth of AHP-focused desiccant solutions, which provide a one-stop-shop advantage for customers in the pharmaceutical, nutraceutical, and diagnostics industries
- Customized process design including significant, up-front carve-out preparation and pre-marketing meetings ahead of a broad marketing effort enabled an efficient process yielding a highly competitive dynamic, with multiple parties advancing to the final stages in the process, and an attractive multiple (13.2x EV/EBITDA)
- Transaction represents one of the three corporate carve-out, sell-side engagements performed by the William Blair Packaging Team in 2019 YTD



Duo Plast is a leading manufacturer in the European stretch film market producing films and offering adjacent services for applications in the load security, silage, and food area.

- Paragon Partners was attracted to Duo Plast's leadership position in the European stretch film market and its compelling financial profile
- William Blair proactively positioned Duo Plast's unique, consultative sales approach that provides multiple entry points for customers and highly customized/differentiated solutions as major competitive advantages; sales approach provided support for the sustainability of Duo Plast's attractive financial profile
- Highly competitive and efficient process with the signing of the transaction taking place within eight weeks of CIP distribution; multiple parties competing to the final stage of the process



Bemis Healthcare Packaging Europe (BHPE) consists of three facilities in Elsham (UK), Londonderry (UK), and Clara (IE) offering packaging for the medical device and food markets, such as roll stock, bags, pouches, and die-cut lids.

- Kohlberg was attracted to the opportunity to combine BHPE with its portfolio company, Nelipak (acquired in July 2019), a global manufacturer of custom designed thermoformed packaging for Class II and Class III medical devices; the combined entity represents a comprehensive medical packaging platform with meaningful cross-selling opportunities
- Transaction commenced following the European Commission ordering Amcor/Bemis (NYSE: AMCR) to divest BHPE due to competitive concerns following Amcor's acquisition of Bemis
- Highly competitive dynamic; multiple parties completed diligence and progressed to the final stage of the transaction
- William Blair worked collaboratively with anti-trust and legal counsel to assist the Monitoring Trustee in assessing the suitability of each potential buyer

William Blair Packaging By the Numbers

+90

Packaging related transactions signed / closed

99%

all time packaging sell-side closure rate

Spotlight on Recent William Blair Transactions (cont'd)



Pregis is a provider of innovative protective packaging materials, equipment, and surface protection products serving a wide variety of consumer and industrial markets including food, pharmaceutical, healthcare, medical devices, agricultural, e-commerce, retail, automotive, transportation, furniture, electronics, building, construction, and military/aerospace.

- Warburg Pincus was drawn to Pregis's razor/razorblade model, which creates a recurring consumables revenue stream, its long-term growth profile, and its proven M&A strategy that has a long runway for further growth; William Blair worked collaboratively with Warburg Pincus to define and validate Pregis's M&A opportunity
- Warburg Pincus was attracted to William Blair's insights into Pregis, following its role as sell-side advisor to Pregis in 2014, as well as Blair's protective packaging industry insights stemming from its role in 2019 as sell-side advisor to Automated Packaging Systems, a key competitor to Pregis
- Transaction represents the second packaging-related buy-side engagement between Warburg Pincus and William Blair following Warburg Pincus' successful acquisition of Duravent in 2017



Loparex is a leading, global manufacturer of custom silicone release liners, serving customers across a broad range of end-markets (e.g., medical, graphic arts, industrial, tapes, hygiene) with in-depth material and technical expertise and industry-leading production technologies across operations in North America, Europe, and Asia.

- Pamplona was attracted to the M&A consolidation opportunity via Loparex's leadership position in a highly fragmented market; shortly after the transaction, Pamplona acquired Infiana in a highly complementary transaction
- William Blair proactively positioned Loparex's multifaceted organic and inorganic growth to support the forecast growth plan
- William Blair designed a highly competitive and targeted outreach resulting in an expedited process that drove multiple parties to the final stage of the process, with a signed transaction five weeks after initial indications



Automated Packaging Systems (APS) is a leading provider of comprehensive packaging systems, focused on protective and flexible packaging solutions for the industrial, e-commerce, and food end-markets. APS's product portfolio includes packaging machines, related consumables (e.g., bags, film, inflatables, stand-up pouches), and spare parts and ribbons. APS was previously a privately held (~68% ESOP-owned), family/founder business.

- Sealed Air (NYSE:SEE) was attracted to the opportunity to broaden its product portfolio within the e-commerce, fulfillment, and food packaging markets as well as expand its product development platform via APS's deep culture of innovation
- The transaction is expected to be accretive to Sealed Air's 2019 adjusted EBITDA, which benefits from synergies attributable to cross-selling opportunities and cost synergies resulting from supply chain efficiencies
- William Blair designed a customized, highly targeted process resulting in an attractive outcome (12.8x EV/2018 EBITDA per Sealed Air investor presentation)

William Blair
Packaging
By the Numbers

12

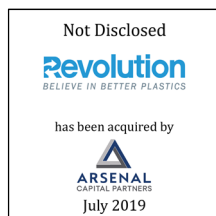
deals completed / signed in
2019 YTD

~11.2X

median 2019 YTD EV/EBITDA*

* Represents Sell-side M&A
Packaging transactions

Spotlight on Recent William Blair Transactions (cont'd)



Leading green technology manufacturer of blown-film serving niche, growing polyethylene markets such as agricultural (e.g., irrigation, silage), foodservice (e.g., can liners, carry out bags), and commercial/construction (e.g., bags, sheeting). Revolution Plastics offers an innovative, closed-loop model in agricultural films, where it entirely owns and controls the manufacture, collection, recycling, and resale of its products.

- Arsenal was attracted to Revolution Plastics' on-point sustainability thesis and the opportunity to benefit from strong industry tailwinds attributable to recent regulation and an increasing consumer focus on sustainable plastic packaging
- Early buyer engagement through Revolution Plastics' participation in William Blair's Family Office Convening in 2018 and premarketing meetings built rapport with buyers and helped them develop an early investment thesis with Revolution Plastics
- Sell-side process was pre-empted prior to launch given the attractiveness of the business model and management team



Select North American Flexible Packaging Assets of Amcor (NYSE:AMCR), located in Madison and Milwaukee, Wisconsin, and Ashland, Massachusetts, included a broad portfolio of sterilizable medical device packaging substrates including coated and uncoated Tyvek®, heat-seal and cold-seal coated paper and films, medical grade laminates, and die-cut lids and labels.

- The transaction provides Tekni-Plex with the opportunity to deepen its presence in the medical device end-market and expand its medical packaging product portfolio
- Transaction commenced following the U.S. Department of Justice (DOJ) ordering Amcor/Bemis to divest select North American facilities due to competitive concerns following Amcor's acquisition of Bemis
- Customized a highly efficient, strategic-only marketing process that navigated a U.S. government shutdown, U.S. DOJ requirement to sign the divestiture prior to approval of the acquisition of Bemis, and the splitting of a facility between Tekni-Plex and Amcor



Polychem is a vertically integrated provider of securement and protective packaging, including the processing of recycled post-consumer PET. Polychem's products include polyester and polypropylene strapping consumables and complementary strapping solutions from the most basic manual tools to large, engineered systems.

- Proactively positioned Polychem's leadership position and ability to drive future growth through existing distributor relationships
- Sterling Group was attracted to the opportunity to further grow the previously family/founder owned business and expand the systems segment to migrate to more of a razor/razorblade business model
- William Blair created a competitive, global process yielding strong interest from multiple strategic and financial parties

Packaging Investment Banking

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Sector and Transaction Data

Recent Notable Packaging Transactions

Announced: July 2019		Observations/Rationale
Target:	 Infiana Group GmbH Forchheim, Bavaria, Germany	<p>Infiana is a manufacturer of engineered polyolefin films serving critical functions in a diverse range of growth industries, with a focus on building and construction (B&C), pressure sensitive materials (PSM), personal care, healthcare, and composites. Infiana has production sites in Germany and the U.S. and a total of 800 employees. Pamplona Capital Management, LLP is a specialist investment manager established in 2005 that provides an alternative investment platform across private equity and single-manager hedge fund investments.</p> <ul style="list-style-type: none"> Pamplona was attracted to Infiana's heritage of innovation and growth trajectory, as well as the opportunity to combine Infiana with its portfolio company, Loparex Infiana transaction shortly followed Pamplona's acquisition of Loparex, which was announced in June 2019; Pamplona intends to combine the two complementary businesses to create a global release line platform Transaction increases Loparex's film liner product offering and optimizes the global, collective footprint to meaningfully deepen Loparex's presence in Europe
Acquirer:	 Pamplona Capital Management London, United Kingdom	
Key Metrics:		
Implied Enterprise Value (\$M):	Proprietary	
EV/LTM Revenue:	Proprietary	
EV/LTM EBITDA:	Proprietary	
Announced: June 2019		Observations/Rationale:
Target:	 Anchor Packaging, Inc. St. Louis, MO	<p>Anchor Packaging is a leading packaging-focused thermoformers with over 450 rigid packaging and cling film products within its unique, stock product line. Anchor Packaging manufactures plastic packaging for the foodservice retail and food processor industries, with a portfolio including Crisp Food Technologies containers, Safe Pinch Tamper-Evident containers and packaging for takeout and ready-to-heat meals. The Jordan Company (TJC) is a middle-market private equity firm that manages funds with original capital commitments in excess of \$8 billion. TJC invests in and contributes to the growth of many businesses across a wide range of industries.</p> <ul style="list-style-type: none"> TJC was attracted to Anchor's attractive product portfolio and proven ability to drive sustainable organic growth The Hermann family, who has owned Anchor for 56 years, will continue to have a meaningful ownership stake TJC's capital infusion will be used to help drive transformational growth for Anchor via future acquisitions, geographic expansion, and acquisition of new customers Transaction continues TJC's focus on investing in the packaging industry, with previous investments in Transcendia and ProMach
Acquirer:	 The Jordan Company New York, NY	
Key Metrics:		
Implied Enterprise Value (\$M):	Proprietary	
EV/LTM Revenue:	Proprietary	
EV/LTM EBITDA:	Proprietary	
Announced: June 2019		Observations/Rationale:
Target:	 Nelipak Corporation Cranston, RI	<p>Nelipak is a leading global provider of custom designed rigid packaging for the medical device and pharmaceutical industries. The company's products include thermoformed medical trays and blisters, pharmaceutical handling trays, surgical procedure trays, and lidding materials. Nelipak was previously owned by Mason Wells, a Milwaukee-based private equity firm focused on the packaging, outsourced business services, CPG, and engineered products and services sectors. Kohlberg & Company, LLC is a private equity firm that has completed 76 platform investments and nearly 200 add-on acquisitions, with an aggregate transaction value in excess of \$15 billion.</p> <ul style="list-style-type: none"> Kohlberg was attracted to Nelipak's leading global position in the healthcare packaging market supplemented with cleanroom capabilities and a talented management team poised to continue to grow via M&A; buy-and-build strategy is central to Kohlberg's investment thesis Shortly following Kohlberg's acquisition, Nelipak acquired the Bemis Healthcare Packaging Europe segment (NYSE:AMCR) in July 2019 Transaction continues Kohlberg's focus on healthcare packaging platforms, with previous and relevant investments in PPC Industries and Spectrum Plastics Group
Acquirer:	 Kohlberg & Company, LLC Mount Kisco, NY	
Key Metrics:		
Implied Enterprise Value (\$M):	Proprietary	
EV/LTM Revenue:	Proprietary	
EV/LTM EBITDA:	Proprietary	

Announced: April 2019**Observations/Rationale:**

Target: 
Next Generation Films, Inc.
Lexington, OH

Acquirer: 
Charter NEX Films, Inc.
Milton, WI

Key Metrics:

Implied Enterprise Value (\$M): \$1,070
EV/LTM Revenue: Proprietary
EV/LTM EBITDA: Proprietary

Next Generation Films supplies specialty films to a variety of markets, including the food packaging, automobile, courier, manufactured housing, and protective packaging segments. The company has become one of the largest custom blown-film companies, focused on producing innovative film structures. Charter NEX is North America-based provider of high-performance specialty films used in flexible packaging and other end-use markets. Charter NEX is owned by Leonard Green & Partners and Oak Hill Capital.

- Highly complementary businesses focused on producing innovative, high-quality films for the food packaging and other end-markets with a combined footprint of 11 facilities and over 100 extrusion lines
- Charter NEX was attracted to the opportunity to increase its scale as a specialty films provider and diversify its overall product portfolio and end-market segmentation
- Transaction represents Charter NEX's first acquisition under Leonard Green & Partners' and Oak Hill Capital's ownership

Announced: April 2019**Observations/Rationale:**

Target: 
Olcott Plastics, Inc.
St. Charles, IL

Acquirer: 
Pretium Packaging, LLC
Chesterfield, MO

Key Metrics:

Implied Enterprise Value (\$M): Proprietary
EV/LTM Revenue: Proprietary
EV/LTM EBITDA: Proprietary

Olcott Plastics specializes in injection molding and decorating of single and double wall polypropylene jars, seamless "PET" jars, and injection molding and lining of PP closures. Over the past 50 years, Olcott has provided primary packaging solutions to the beauty and healthcare markets. Pretium Packaging, a portfolio company of Genstar Capital, is a manufacturer of plastic containers and closures for the food, specialty beverage, household and industrial cleaner, sports nutrition and health, and beauty product industries. Pretium manufactures approximately 2 billion PET and HDPE containers annually from its 17 locations across the United States and Canada for more than 700 customers.

- Pretium was attracted to the opportunity to expand its predominantly blow molding capabilities further into injection molding via Olcott's presence in the personal care and beauty segments
- Transaction enables Olcott to offer its customers a comprehensive rigid packaging product portfolio as well as access to Pretium's national footprint
- Transaction represents Pretium's sixth acquisition under Genstar's ownership

Announced: February 2018**Observations/Rationale:**

Target: 
RPC Group Plc
Rushden, Northamptonshire, UK

Acquirer: 
Berry Global Group, Inc.
Evansville, IN


Key Metrics:


Implied Enterprise Value (\$M): \$5,807
EV/LTM Revenue: 1.2x
EV/LTM EBITDA: 7.6x

RPC Group is a designer and engineer of plastic products for packaging and selected non-packaging markets. RPC uses a wide range of polymer conversion technologies in the production of both rigid and flexible plastics, and represents one of the largest plastic converters in Europe. Berry Global Group, Inc. (NYSE:BERY), based in Evansville, Indiana, is a global supplier of a broad range of innovative rigid, flexible, and nonwoven products used every day within consumer and industrial end-markets.

- Acquisition creates a global player in plastic packaging and recycled solutions with \$13 billion in pro forma revenue, \$2.4 billion in EBITDA, and a footprint that spans more than 290 locations on six continents
- Targeting ~\$150 million of annual cost synergies; ~50% from procurement, ~30% from general and administrative, and ~20% from operational improvements

Announced: March 2019

Target: 
Paragon Films, Inc.
Broken Arrow, OK

Acquirer: 
Wellspring Capital Management
New York, NY


Key Metrics:
Implied Enterprise Value (\$M): Proprietary
EV/LTM Revenue: Proprietary
EV/LTM EBITDA: Proprietary


Observations/Rationale:

Founded in 1988, Paragon is a leading manufacturer of high performance stretch films offering a variety of premium quality, 100% recyclable hand and machine stretch films. Paragon serves the food and beverage, consumer products, logistics, and industrials end-markets. Wellspring Capital Management is a private equity firm that has raised over \$4.0 billion of initial capital commitments through six private equity funds. Over the past 20 years, Wellspring has invested in over 35 platform investments across various segments of the U.S. and global economies.

- Wellspring was attracted to Paragon's leadership position in stretch film and its strong profitability and cash flow
- Wellspring's investment thesis focuses on organic growth capitalizing on attractive stretch film industry dynamics (e.g., e-commerce, enhanced packaging securement), which can be supplemented by further consolidating a fragment market
- Transaction continues Wellspring's focus on investing in the packaging industry, with current and previous investments in SupplyOne, Hoffmaster, and ProAmpac

Announced: March 2019

Target: 
DS Smith Plastics
Chicago, IL

Acquirer: 
Liqui-Box Corporation
Richmond, VA


Key Metrics:
Implied Enterprise Value (\$M): ~\$590
EV/LTM Revenue: Proprietary
EV/LTM EBITDA: 9.9x


Observations/Rationale:

DS Smith's (LSE: SMDS) Plastics Division consists of sustainable flexible packaging and dispensing solutions, and rigid packaging products (i.e., plastics extrusion, injection molded, foam). The Plastics Division employs more than 2,000 people across 26 facilities in North America, Europe, and Asia-Pacific. Liqui-Box provides sustainable packaging solutions for quick, fresh, and cost-efficient delivery of liquid and semi-liquid products. Liqui-Box manufactures Bag-in-Box flexible packaging, fitments, and pouches to a wide variety of industries, including dairy, beverage, food, and nonfood. Liqui-Box is owned by Olympus Partners, a private equity firm focused on providing equity capital for middle-market management buyouts and for companies needing capital for expansion.

- Highly strategic transaction providing the combined company with enhanced geographic reach, enhanced operating platform, and advancements in product development and innovation
- Combination creates a leading provider of bag-in-box solutions through the combination of Liqui-Box and the Plastic Division's product line, Rapak
- In October 2019, Liqui-box agreed to divest its U.K. bag-in-box business to Peak Packaging in order to satisfy the U.K. Competition and Markets Authority's (CMA) condition to acquire DS Smith Plastics

Announced: February 2019

Target: 
Multi-Color Corporation
Cincinnati, OH

Acquirer: 
WS Packaging Group, Inc.
Green Bay, WI

Key Metrics:
Implied Enterprise Value (\$M): \$2.500
EV/LTM Revenue: ~1.5x
EV/LTM EBITDA: 8.8x

Observations/Rationale:

Multi-Color Corporation (MCC) is a global leader in label solutions that supports some of the world's most prominent brands in home and personal care, wine and spirits, food and beverage, healthcare, and specialty consumer products. WS Packaging, a portfolio company of Platinum Equity, is a printing and label converting operator focused on pressure sensitive, glue applied, shrink sleeve, and in-mold label applications. WS Packaging serves the food and beverage, CPG, and pharmaceuticals industries.

- Following the completion of the deal, WS Packaging became a business unit of Multi-Color; the combined entity is one of the largest pure-play label suppliers globally with pro forma revenue of \$2.2 billion, serving the food and beverage, wine and spirits, beer, and nonalcoholic sales markets
- Transaction is expected to yield ~\$100 million worth of synergies, realized over a one- to three-year period, across procurement savings, headcount reduction, plant consolidation, operational enhancements, and reduction in public company costs
- Multi-Color transaction follows Platinum Equity's acquisition of WS Packaging in 2018, which identified market consolidation as a level for future value drivers
- William Blair advised MCC's Board of Directors in connection with the WS Packaging acquisition

Announced: December 2018**Observations/Rationale:**

Target: 
Caraustar
Caraustar Industries, Inc.
Austell, GA

Acquirer: 
Greif, Inc.
Delaware, OH

Key Metrics:

Implied Enterprise Value (\$M):	\$1,800
EV/LTM Revenue:	1.29x
EV/LTM EBITDA:	10.3x

Caraustar Industries, Inc. is a provider of uncoated recycled paperboard (URB) and coated recycled paperboard (CRB), with a variety of applications that include tubes and cores and a diverse mix of specialty products. Based in Austell, Georgia, Caraustar's footprint includes over 80 operating facilities throughout the United States. Greif (NYSE:GEF) is a global leader in industrial packaging products focusing on wide array of packaging products including drums, containers, flexible products, and recycled paperboard.

- Greif was attracted to the opportunity to enhance its product portfolio by acquiring Caraustar's vertically integrated positions in uncoated recycled board (URB) and coated recycled board (CRB)
- Caraustar offers a highly complementary business profile to Greif with leading positions in the tubes and cores and folding carton markets
- Value creation to be realized through cost synergies (~\$45 million within 36 months) attributable to recycled fiber savings and the optimization of operations and transportation; implied post-synergy transaction multiple of 6.8x EBITDA vs. 8.2x EV/LTM run-rate EBITDA and 10.3x LTM EBITDA

Announced: December 2018**Observations/Rationale:**

Target: 
Ranpak Holdings Corp.
Concord Township, OH

Acquirer: 
One Madison Group
New York, NY

Key Metrics:

Implied Enterprise Value (\$M):	\$950
EV/LTM Revenue:	3.56x
EV/LTM EBITDA:	10.9x

Founded in 1972, Ranpak (NYSE:PACK) is an innovative leader in e-commerce and industrial supply chain solutions via its predominately paper-based product portfolio. Ranpak is based in Concord Township, Ohio, and has approximately 550 employees. One Madison Corporation (OMAD) is a special purpose acquisition company (SPAC) launched in 2018. OMAD began trading on the NYSE in January 2018.

- One Madison was attracted to Ranpak's position in fiber-based solution serving the e-commerce market, as its position enables Ranpak to benefit from the continued momentum in the e-commerce market, as well as the increasing consumer focus on sustainability
- Ranpak became a public company through its combination with One Madison Corporation; transaction was primarily funded with financed debt with Ranpak currently having a net debt/2019E adjusted EBITDA ratio of ~5.5x
- Compelling recurring revenue dynamics generated from Ranpak's systems-based business model across an installed platform of over 90,000 machines serving 40 countries yields attractive business stability and revenue growth visibility

Public Packaging Company Valuations by Sector

Flexible Packaging

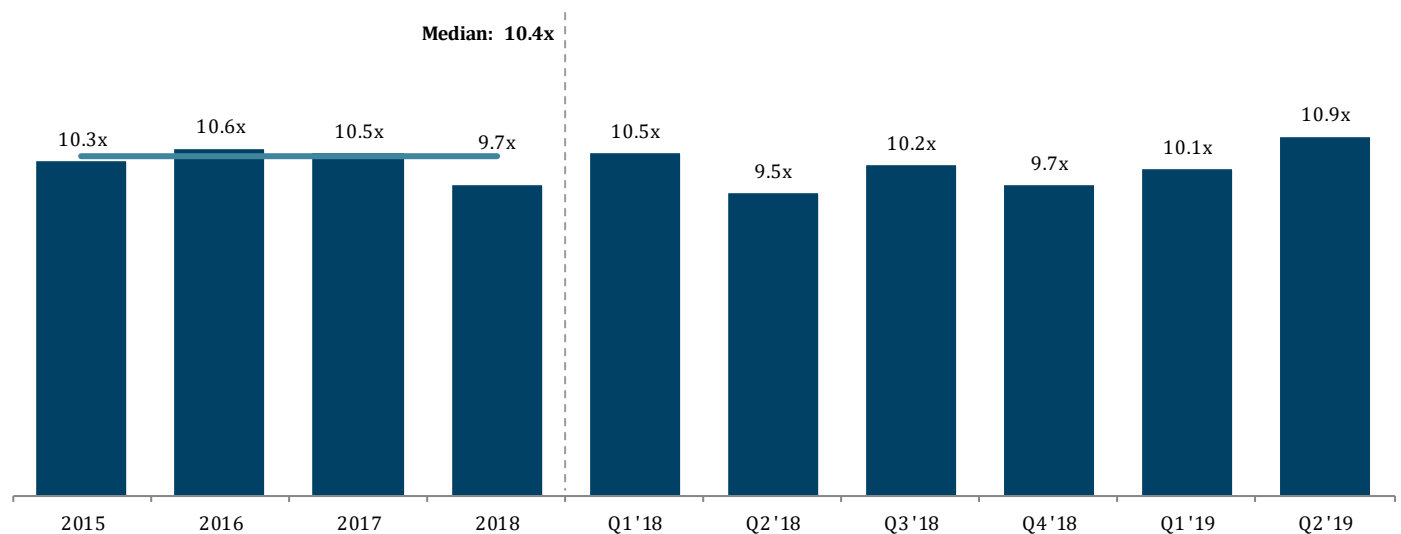
Select Comparable Public Company Metrics

Company	Stock Price Change Since 06/30/18	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM EBITDA	EV/LTM EBITDA	Net Debt/ EBITDA
Amtcor plc	12.4%	\$13,458.6	\$1,901.8	19.4%	14.1%	13.4%	\$18,355.6	\$24,076.8	1.79x	12.7x	3.0x
Berry Global Group, Inc.	14.5%	\$13,111.0	\$2,361.0	18.1%	18.0%	15.6%	\$7,311.4	\$18,691.4	1.43x	7.9x	4.8x
Sealed Air Corporation	0.8%	\$4,714.4	\$894.0	31.7%	19.0%	15.3%	\$6,814.7	\$10,146.2	2.15x	11.3x	3.7x
Sonoco Products Company	24.5%	\$5,438.5	\$755.4	19.5%	13.9%	10.3%	\$6,629.9	\$8,246.7	1.52x	10.9x	2.1x
Huhtamäki Oyj	14.1%	\$3,680.7	\$493.9	16.1%	13.4%	7.0%	\$4,265.2	\$5,443.6	1.52x	11.3x	2.3x
Wipak Ltd.	(1.8%)	\$892.0	\$194.5	30.7%	21.8%	13.3%	\$2,140.0	\$1,806.3	2.03x	9.3x	NMF
Intertape Polymer Group Inc.	1.9%	\$1,093.6	\$148.1	20.7%	13.5%	6.7%	\$842.6	\$1,417.6	1.30x	9.6x	3.8x
Mean		\$6,055.5	\$964.1	22.3%	16.3%	11.7%	\$6,622.8	\$9,975.5	1.67x	10.4x	3.3x
Median		\$4,714.4	\$755.4	19.5%	14.1%	13.3%	\$6,629.9	\$8,246.7	1.52x	10.9x	3.4x

(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures

Sources: Capital IQ, FactSet, and William Blair market analysis as of June 30, 2019

Valuation Multiples – LTM EV/EBITDA



Rigid Packaging

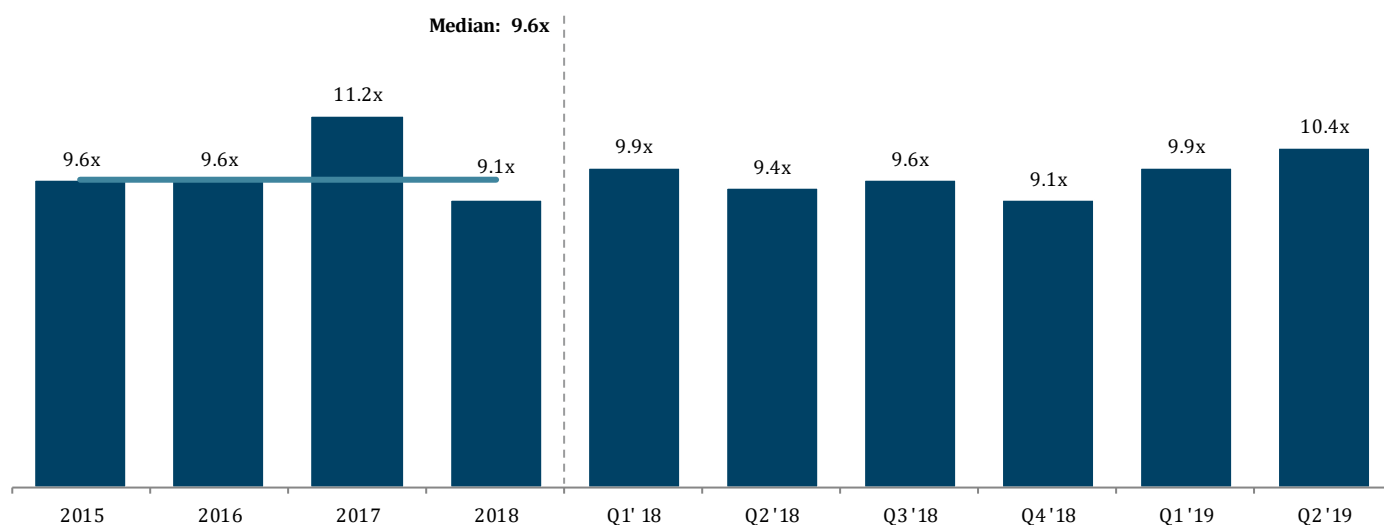
Select Comparable Public Company Metrics

(\$ in millions)		LTM Financials		LTM Margins		Valuation					
Company	Stock Price Change Since 06/30/18	Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM EBITDA	EV/LTM EBITDA	Net Debt/EBITDA
Amcor plc	12.4%	\$13,458.6	\$1,901.8	19.4%	14.1%	13.4%	\$18,355.6	\$24,076.8	1.79x	12.7x	3.0x
Berry Global Group, Inc.	14.5%	\$13,111.0	\$2,361.0	18.1%	18.0%	15.6%	\$7,311.4	\$18,691.4	1.43x	7.9x	4.8x
AptarGroup, Inc.	33.2%	\$2,864.8	\$595.5	35.4%	20.8%	13.0%	\$8,301.7	\$9,387.9	3.28x	15.8x	1.8x
Sonoco Products Company	24.5%	\$5,438.5	\$755.4	19.5%	13.9%	10.3%	\$6,629.9	\$8,246.7	1.52x	10.9x	2.1x
Silgan Holdings Inc.	14.1%	\$4,463.7	\$627.5	15.6%	14.1%	9.5%	\$3,514.8	\$6,233.1	1.40x	9.9x	4.3x
IPL Plastics Inc.	(26.2%)	\$708.2	\$91.0	17.0%	12.9%	6.3%	\$406.6	\$743.8	1.05x	8.2x	3.7x
Mean		\$6,674.1	\$1,055.4	20.8%	15.6%	11.4%	\$7,420.0	\$11,229.9	1.74x	10.9x	3.3x
Median		\$4,951.1	\$691.4	18.8%	14.1%	11.7%	\$6,970.6	\$8,817.3	1.47x	10.4x	3.3x

(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures

Sources: Capital IQ, FactSet, and William Blair market analysis as of June 30, 2019

Valuation Multiples – LTM EV/EBITDA



Labels

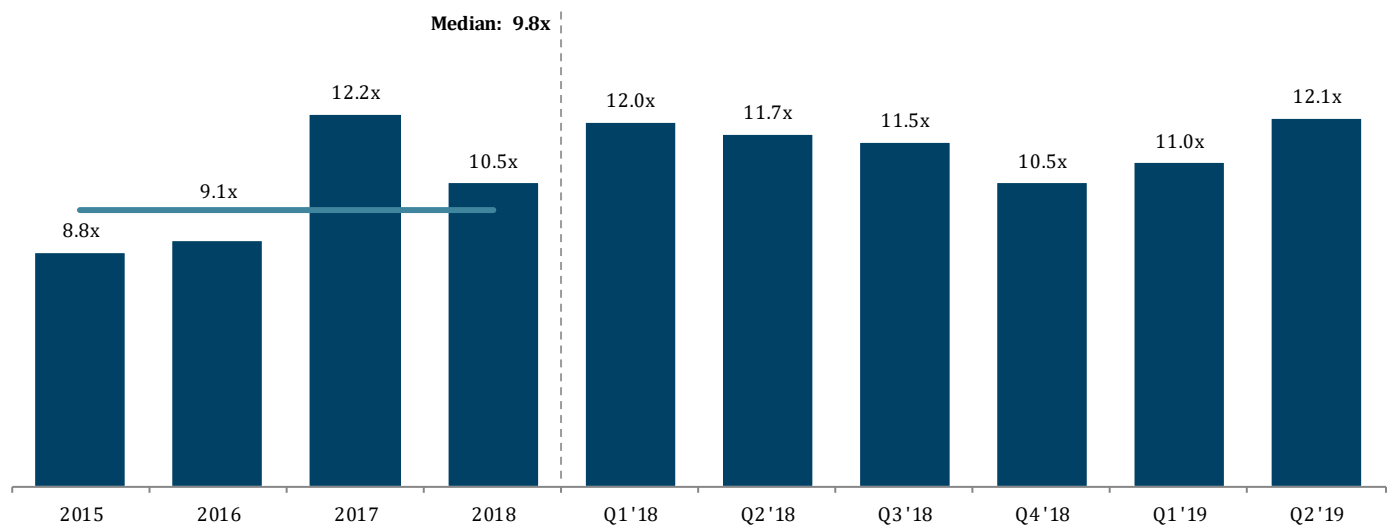
Select Comparable Public Company Metrics

Company	Stock Price Change Since 06/30/18	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM EBITDA	EV/LTM EBITDA	Net Debt/ EBITDA
Avery Dennison Corporation	13.3%	\$7,122.7	\$1,004.2	26.6%	14.1%	10.8%	\$10,145.8	\$12,187.5	1.71x	12.1x	2.0x
CCL Industries Inc.	(0.4%)	\$4,012.7	\$795.9	28.7%	19.8%	13.4%	\$8,760.5	\$10,389.8	2.60x	13.1x	2.1x
Fuji Seal International, Inc.	(16.2%)	\$1,462.9	\$196.8	19.6%	13.5%	8.9%	\$1,803.9	\$1,836.0	1.23x	9.1x	0.2x
Mean		\$4,199.4	\$665.6	25.0%	15.8%	11.0%	\$6,903.4	\$8,137.8	1.84x	11.4x	1.4x
Median		\$4,012.7	\$795.9	26.6%	14.1%	10.8%	\$8,760.5	\$10,389.8	1.71x	12.1x	2.0x

(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures

Sources: Capital IQ, FactSet, and William Blair market analysis as of June 30, 2019

Valuation Multiples – LTM EV/EBITDA



Paper Packaging

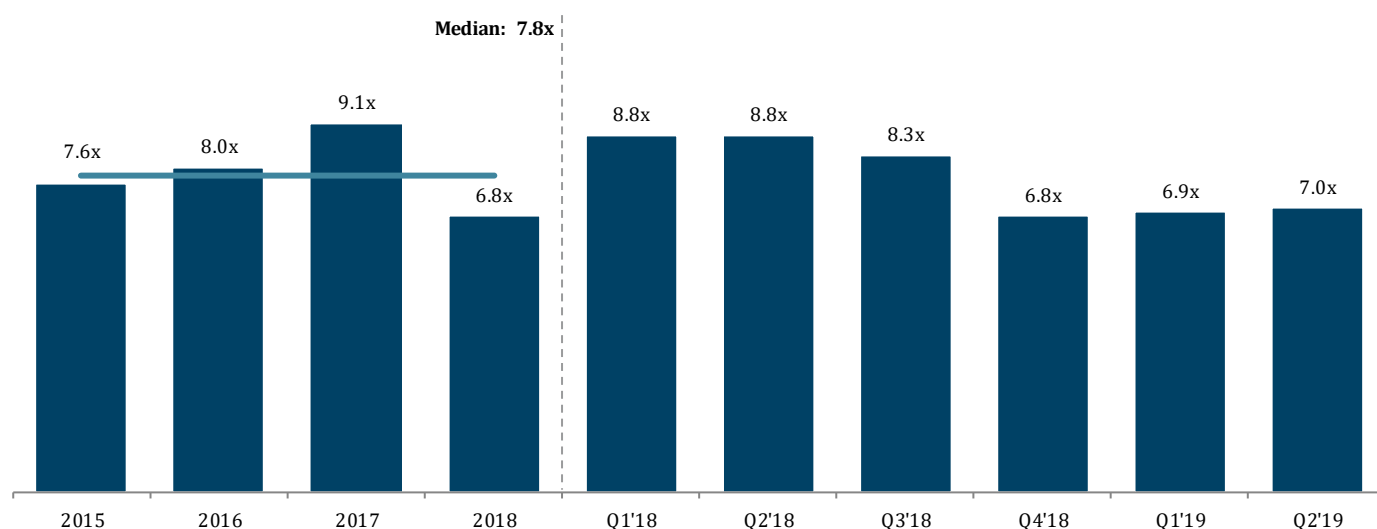
Select Comparable Public Company Metrics

(\$ in millions)											
Company	Stock Price Change Since 06/30/18	LTM Financials		LTM Margins		Valuation					
		Revenue	EBITDA	Gross Profit	EBITDA	OCF Margin ⁽¹⁾	Market Cap	Enterprise Value	EV/LTM EBITDA	EV/LTM EBITDA	Net Debt/EBITDA
International Paper Company	(16.8%)	\$23,328.0	\$4,015.0	33.6%	17.2%	11.3%	\$17,635.6	\$28,308.6	1.21x	7.1x	2.7x
WestRock Company	(36.0%)	\$19,342.3	\$3,364.1	21.5%	17.4%	11.2%	\$9,763.1	\$20,424.0	1.06x	6.1x	3.2x
Mondi plc	(12.7%)	\$8,825.9	\$2,091.7	45.7%	23.7%	13.5%	\$11,176.3	\$14,105.1	1.66x	7.0x	1.3x
Smurfit Kappa Group plc	(23.3%)	\$10,787.9	\$1,864.3	33.1%	17.3%	11.5%	\$7,382.5	\$11,118.5	1.07x	6.2x	2.0x
Packaging Corp of America	(14.7%)	\$7,057.7	\$1,601.6	24.4%	22.7%	15.3%	\$9,253.4	\$11,536.9	1.63x	7.2x	1.4x
DS Smith Plc	(30.4%)	\$9,139.4	\$1,331.4	15.4%	14.6%	10.2%	\$6,331.5	\$9,349.7	1.04x	7.2x	2.3x
Graphic Packaging Holding Company	(3.7%)	\$6,051.5	\$966.5	16.3%	16.0%	9.6%	\$4,217.3	\$8,267.0	1.37x	8.6x	3.4x
Greif, Inc.	(38.5%)	\$5,173.9	\$717.8	20.5%	13.9%	10.9%	\$1,804.8	\$4,774.9	0.92x	6.7x	4.0x
Cascades Inc.	(10.5%)	\$3,800.6	\$415.1	14.1%	10.9%	4.5%	\$773.9	\$2,311.5	0.62x	5.6x	3.4x
Universal Forest Products, Inc.	3.9%	\$4,510.4	\$278.8	13.7%	6.2%	4.2%	\$2,313.6	\$2,647.2	0.59x	9.5x	1.1x
Mean		\$9,801.8	\$1,664.6	23.8%	16.0%	10.2%	\$7,065.2	\$11,284.3	1.12x	7.1x	2.5x
Median		\$7,941.8	\$1,466.5	21.0%	16.6%	11.0%	\$6,857.0	\$10,234.1	1.06x	7.0x	2.5x

(1) Operating cash flow (OCF) calculated as EBITDA less capital expenditures

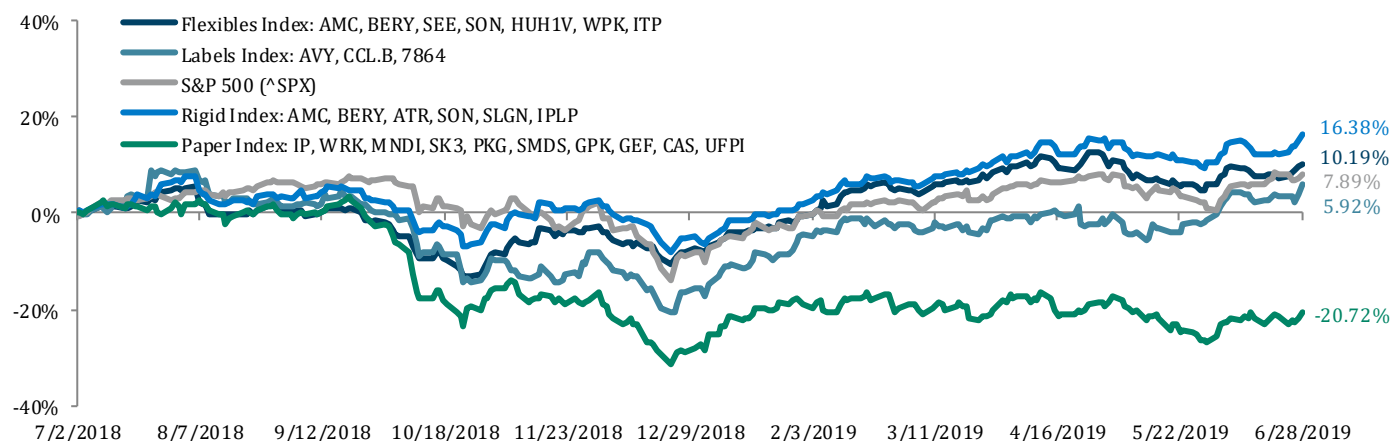
Sources: Capital IQ, FactSet, and William Blair market analysis as of June 30, 2019

Valuation Multiples – LTM EV/EBITDA

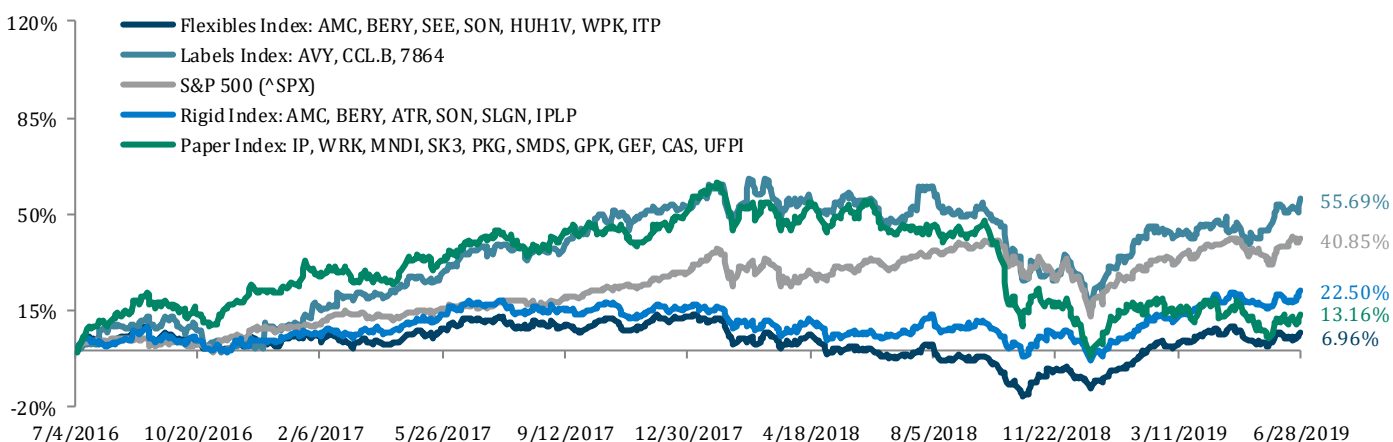


Indexed Share Price Performance

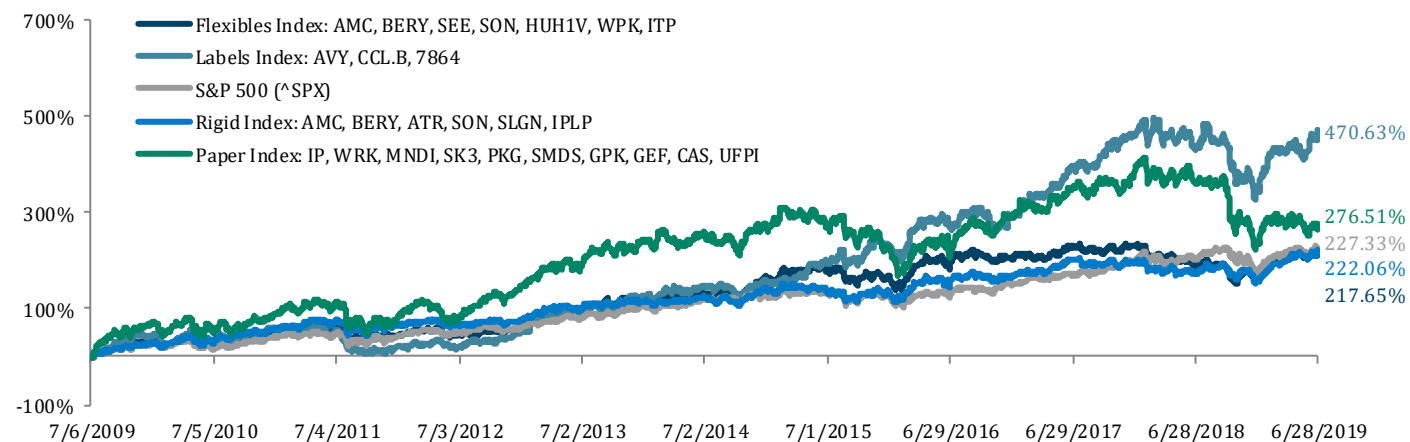
Indexed Stock Performance – Last 12 Months



Indexed Stock Performance – Last Three Years



Indexed Stock Performance – Last 10 Years



Source: FactSet as of June 30, 2019

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