



## Packaging Quarterly update

Q1 2019

## Packaging trends

### Global pharmaceutical packaging market<sup>1</sup>

The global pharmaceutical packaging market is expected to grow at a CAGR of about 7 percent during the forecast period 2019-2023. There has been a steady increase in the number of new FDA-approved drugs, which has resulted in increased demand for pharmaceutical packaging. Smart packaging technologies are being developed due to the growing demand for convenience and to help combat medicine counterfeiting.



### Global molded fiber pulp packaging market<sup>3</sup>

The global molded fiber pulp packaging market is forecast to grow at a CAGR of approximately 6% from 2016 to 2026. In 2016 this market generated over \$6 billion in annual revenue. Environmentally friendly and biodegradable are the primary factors driving industry demand. The food and beverage segment of the industry accounted for 69.1% market share in 2015 is expected to continue to dominate over the forecast period through 2026. Asia Pacific excluding Japan is expected to expand at the highest CAGR of 6.6 percent from 2016 to 2026.

### Global aluminum foil packaging market<sup>2</sup>

The global market for aluminum foil packaging is predicted to grow at an annualized rate of 5 percent through 2022. Quick services restaurants are the fastest growing segment of this market, expected to reach \$700 - \$800 billion alone by 2020. Over 12 billion aluminum foil containers are produced across the global each year. Aluminum is a desirable packaging solution due to its lightweight, fire resistant, strong, non-toxic and recyclable properties.

### Global airless packaging market<sup>4</sup>

The global airless packaging market is expected to grow to \$5.9 billion in 2023 from \$4.0 billion in 2018, representing a CAGR of 5.9 percent. Airless packaging systems are designed to limit contamination and wastage while offering improved product shelf life and price dosage. Growing demand for innovative solutions and the trend towards green technologies are expected to create significant opportunity for industry players. This segment's products include bags and pouches, bottles and jars, tubes, etc.

## In this update:

- Packaging trends
- Economic outlook
- Industry analysis
- Select M&A transactions
- Appendix

This update will focus on news and trends in the following areas:

- Pharmaceutical packaging
- Aluminum foil packaging
- Molded fiber pulp
- Airless packaging

## Who we are:

Deloitte Corporate Finance LLC is a leading global middle market M&A adviser. The firm's professionals have extensive knowledge in the Packaging space and use their experience to help clients create and act upon opportunities for liquidity, growth, and long-term advantages.

## Contacts

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## In the news

**March, 2019** – Portfolio company of Olympus Partners, Liqui-Box Corporation, has announced plans to acquire DS Smith plc's Plastics Division to create a comprehensive and innovative leader in flexible and rigid packaging. The combined entity, which includes the Ranpak Corporation and Worldwide Dispenser businesses, will offer customers innovative packaging solutions and is expected to drive advancements in technology and sustainability<sup>5</sup>

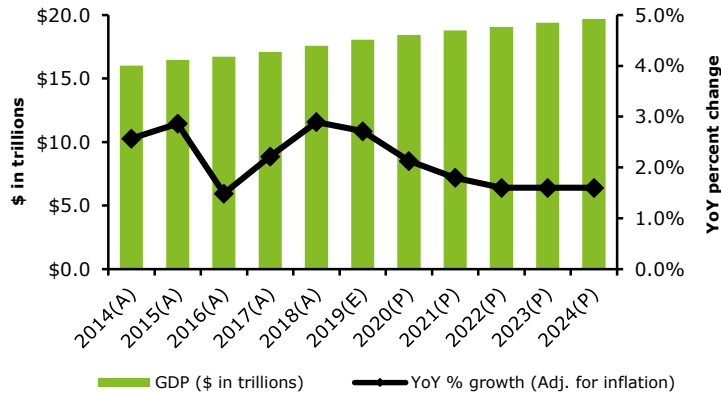
**March, 2018** – Packaging giant RPC plc has agreed to be acquired by US-based plastics company, Berry Global Group, Inc. (Berry Global) for \$4.37 billion. This announcement follows Apollo Global Management LLC's initial offer of \$4.30 billion, representing an 11-pence improvement per share. Berry Global has more than 23,000 employees with over 130 locations, mostly in North America.<sup>6</sup>

**March, 2018** – Olympus Partners has agreed to acquire Tank Holdings Corp. ("Tank Holdings"), a rotational molder of tanks, for the second time. Olympus originally sold Tank Holdings to Leonard Green & Partners LP. Tank Holdings markets its products under the brand names, Norwesco, Snyder, Bonar, Stratis and Bushman.<sup>7</sup>

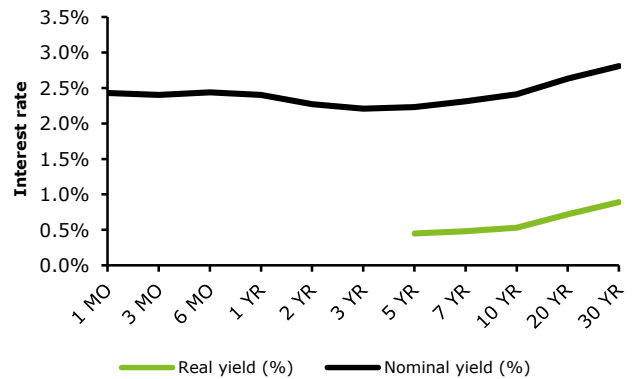
**January, 2019** – Oliver Printing & Packaging Co., (Oliver), a portfolio company of Pfingsten Partners LLC, announced the acquisition of DISC Graphics, Inc., a manufacturer of folding carton packaging, micro-fluted corrugated boxes and pressure sensitive labels. Last year, Oliver acquired Pohlig Packaging, a manufacturer of folding cartons, micro-fluted corrugated boxes and setup boxes.<sup>8</sup>

## Macroeconomic outlook

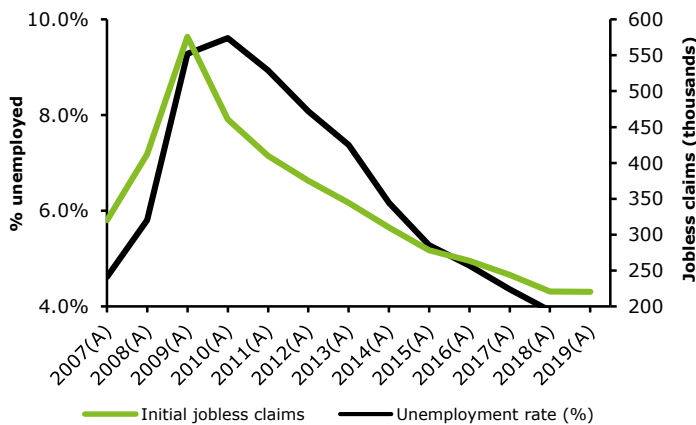
**US gross domestic product<sup>1</sup>**



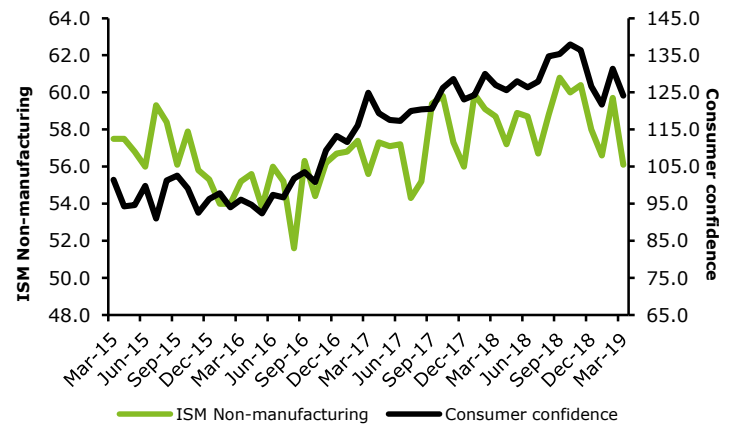
**US Treasury yield curve<sup>2</sup>  
(nominal vs. real)**



**US unemployment rate<sup>3</sup>**



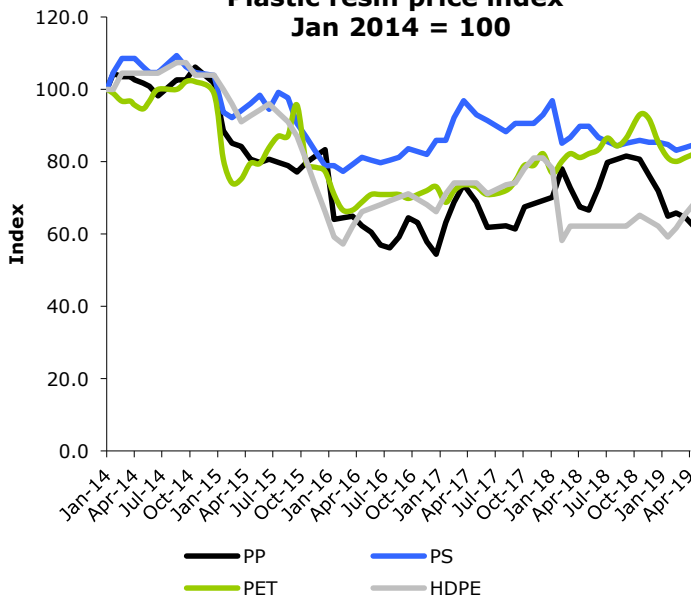
**ISM non-manufacturing index and consumer confidence index<sup>4</sup>**



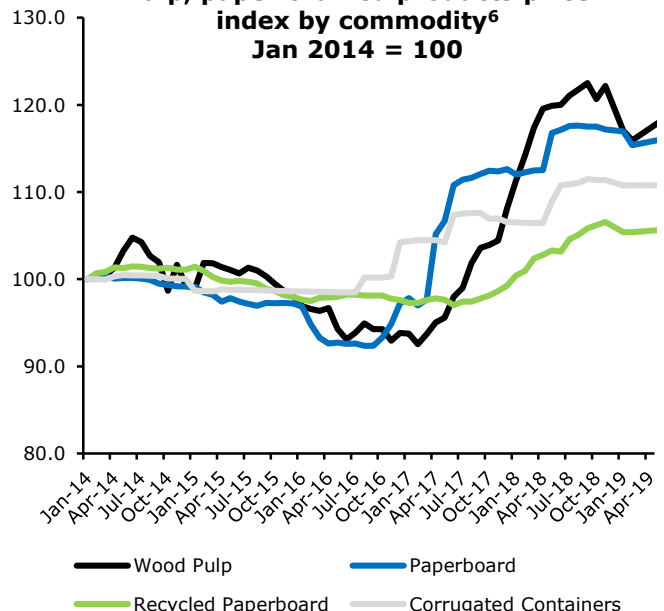
\*An ISM Non-manufacturing index value above 50 signals economic expansion.

## Raw material pricing

**Plastic resin price index<sup>5</sup>  
Jan 2014 = 100**



**Pulp, paper & allied products price index by commodity<sup>6</sup>  
Jan 2014 = 100**

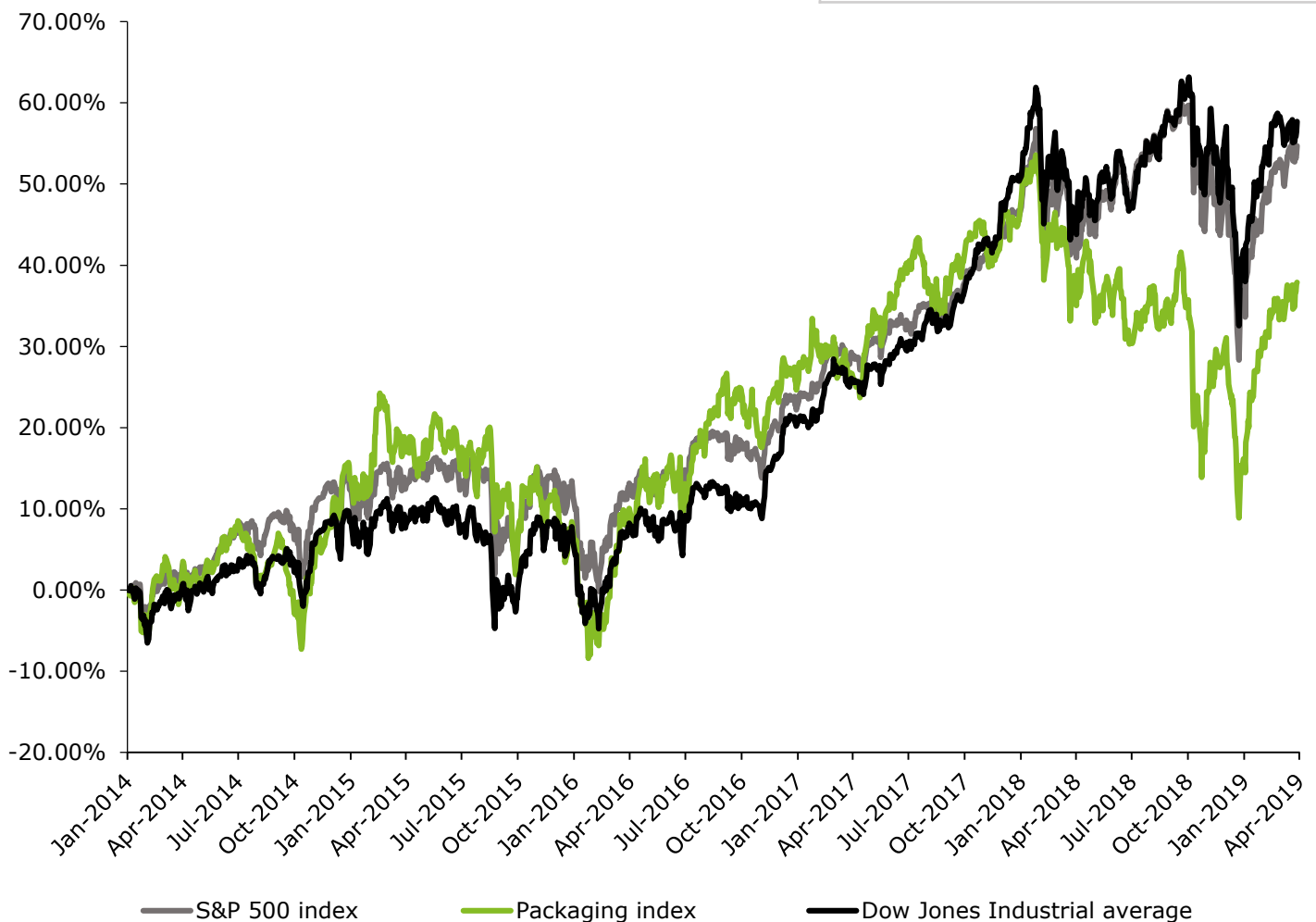


## Packaging sector breakdown and trading statistics<sup>1</sup>

Sector	Number of companies	% of 52 Week high	Median Revenue CAGR (3 Yr)	Median LTM EBITDA	Median EBITDA Margin	Median Enterprise Value (\$M)	Last twelve months		NTM
							EV/ Revenue	EV/ EBITDA	EV/ EBITDA
Plastic	8	93.0%	8.3%	\$742.7	15.4%	\$7,160.3	1.7x	10.6x	9.7x
Diversified Packaging	7	85.5	4.4	610.1	13.4	5,503.8	1.2	9.9	8.9
Paper and Paperboard	18	70.4	3.5	741.0	15.8	5,503.9	1.0	6.7	6.5
Metal and Glass	3	97.6	10.6	1,671.0	15.7	15,818.9	1.4	9.5	9.2
<b>Packaging index</b>	<b>36</b>	<b>89.3%</b>	<b>6.4%</b>	<b>\$741.9</b>	<b>15.6%</b>	<b>\$6,332.1</b>	<b>1.3x</b>	<b>9.7x</b>	<b>9.1x</b>

## Public comparables four-year stock market performance<sup>2</sup>

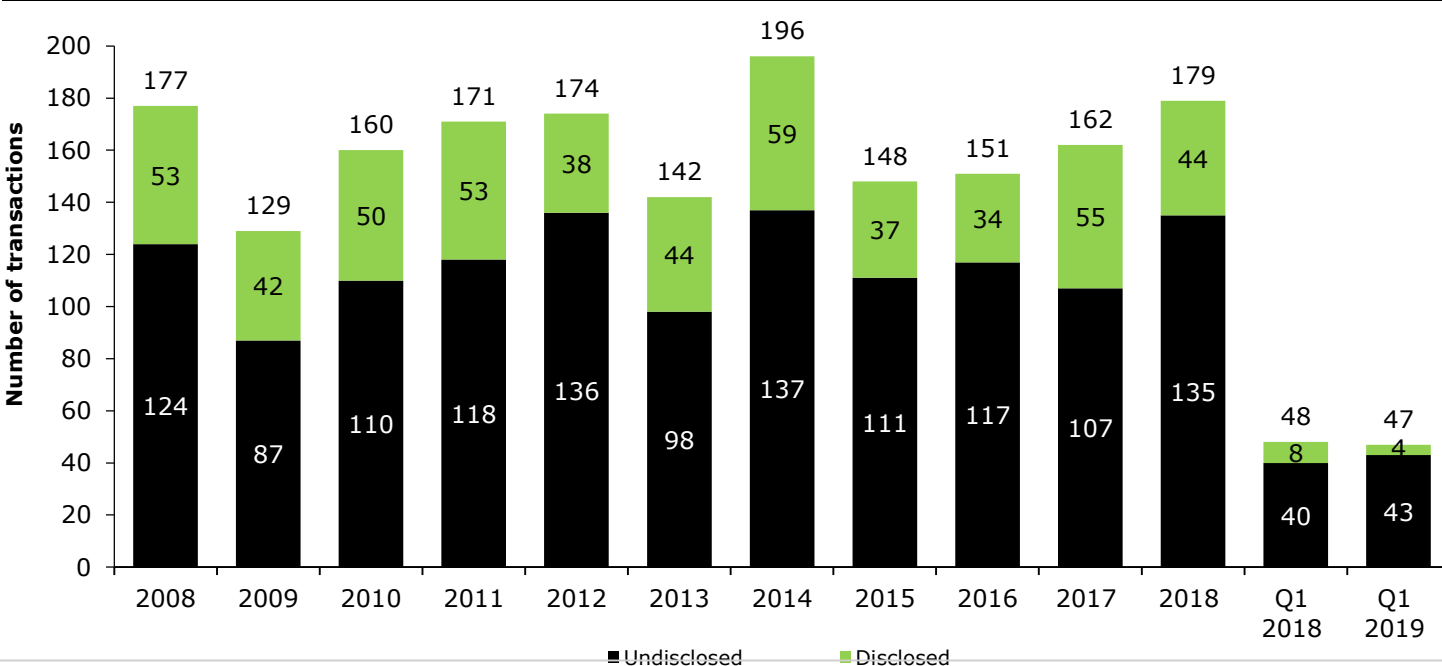
S&P 500 index	<b>54.74 %</b>
Dow Jones Industrial average	<b>57.70 %</b>
Packaging index	<b>37.87 %</b>



## Select Packaging M&A transactions<sup>1,2</sup>

Date	Target/acquiror	Business description	Enterprise value (EV)	EV/ EBITDA
Mar-19	<b>Tank Holdings Corp.</b> Olympus Partners	Tank Holdings Corp. designs and manufactures rotational molded poly and welded steel bulk storage and material handling products. It provides ground storage tanks for fertilizer, agricultural chemical, and plant food storage, plastic, steel, and composite totes for food applicants, above ground water storage tank, below ground septic tank, and cistern tank for water and wastewater treatment, etc. Tank Holdings Corp. was founded in 2008 and is based in Lincoln, Nebraska.	N/A	N/A
Mar-19	<b>Loomans Group NV</b> IPL Plastics Inc.	Loomans Group NV manufactures and sells plastic injection mouldings. The company was founded in 1968 and is based in Lommel, Belgium. As of March 28, 2019, Loomans Group NV operates as a subsidiary of IPL Plastics Inc.	85.5	7.7
Mar-19	<b>RPC Group Plc</b> Berry Global Group, Inc.	RPC Group Plc operates as a plastic product design and engineering company worldwide. It operates through two segments, Packaging and Non-Packaging. The Packaging segment designs plastic packaging for end markets, including the food, beverage, personal care, and healthcare markets; and designs and manufactures other plastic products, such as containers for surface coatings comprising paint pots and vaping accessories. The company was founded in 1991 and is headquartered in Rushden, the United Kingdom.	5,806.8	7.6
Mar-19	<b>Plastics division of DS Smith Plc</b> Liqui-Box Corporation	Plastics division of DS Smith Plc comprises flexible and rigid plastics, and foam products. The asset is located in the United Kingdom.	N/A	N/A
Mar-19	<b>Paragon Films, Inc.</b> Wellspring Capital Management LLC	Paragon Films, Inc. manufactures and supplies stretch film products to customers in various industries in the United States, Canada, Mexico, South America, and internationally. The company offers hand films, including Torque, and Spartan; machine films, including Nexus, Ultimate Force, and Global Force; and specialty and custom films, including PET bottle films, and stretch films for extreme temperatures. Paragon Films, Inc. was founded in 1988 and is based in Broken Arrow, Oklahoma.	N/A	N/A
Jan-19	<b>Disc Graphics, Inc.</b> Oliver Printing & Packaging Co.	Disc Graphics, Inc. manufactures specialty packaging, labeling, and printing solutions. It offers folding cartons (paperboard and plastic), packaging products, mini flute corrugate packaging products, pressure-sensitive labels, and collateral print materials. The company serves beauty and personal care, consumer products, entertainment/media, healthcare, pharmaceutical, and private label industries. Disc Graphics, Inc. was founded in 1969 and is based in Hauppauge, New York.	N/A	N/A

## Annual Packaging M&A transaction volume<sup>3</sup>



## Appendix

Public comparables analysis<sup>1</sup>

Company (ticker)	% of 52 Week high	LTM Revenue	Revenue CAGR (3 Yr)	LTM EBITDA	EBITDA Margin	Enterprise Value (EV) <sup>(1)</sup>	Last twelve months		NTM
							EV/Revenue	EV/EBITDA	EV/EBITDA
(\$ in millions)									
<b>Plastic</b>									
Arcor Limited (ASX:AMC)	99.1%	\$9,368.7	0.1%	\$1,253.1	13.4%	\$16,759.3	1.8x	13.4x	9.9x
Avery Dennison Corporation (NYSE:AVY)	97.1	7,159.0	6.3	964.7	13.5	11,197.0	1.6	11.6	9.7
Berry Global Group, Inc. (NYSE:BERY)	94.5	8,065.0	15.2	1,361.0	16.9	12,479.3	1.5	9.2	8.1
Brady Corporation (NYSE:BRC)	95.5	1,171.5	1.2	184.0	15.7	2,293.5	2.0	12.5	11.5
CCL Industries Inc. (TSX:CCL.B)	80.0	3,782.6	19.3	723.5	19.1	8,577.1	2.3	11.9	10.5
Intertape Polymer Group Inc. (TSX:ITP)	87.5	1,053.0	10.4	136.2	12.9	1,299.7	1.2	9.5	8.2
RPC Group Plc (LSE:RPC)	91.6	5,048.3	39.2	762.0	15.1	5,743.5	1.1	7.5	6.5
Wipak Ltd. (TSX:WPK)	85.5	889.6	3.7	192.9	21.7	1,774.7	2.0	9.2	10.1
<b>Median</b>	<b>93.0%</b>						<b>1.7x</b>	<b>10.6x</b>	<b>9.8x</b>
<b>Mean</b>	<b>91.3%</b>						<b>1.7x</b>	<b>10.6x</b>	<b>9.3x</b>
<b>Diversified Packaging</b>									
DS Smith Plc (LSE:SMDS)	57.6%	\$7,877.6	17.5%	\$983.6	12.5%	\$8,219.6	1.0x	8.4x	7.1x
Greif, Inc. (NYSE:GEF)	65.7	3,865.1	3.5	519.5	13.4	3,287.2	0.9	6.3	5.2
Huhtamäki Oyj (HLSE:HUH1V)	90.5	3,553.5	4.4	434.6	12.2	4,865.2	1.4	11.2	9.5
Orora Limited (ASX:ORA)	80.4	3,138.3	7.0	321.2	10.2	3,178.1	1.0	9.9	9.3
Sealed Air Corporation (NYSE:SEE)	98.5	4,732.7	2.4	860.1	18.2	10,370.9	2.2	12.1	10.2
Silgan Holdings Inc. (NasdaqGS:SLGN)	99.7	4,448.9	5.7	610.1	13.7	5,503.8	1.2	9.0	8.9
Sonoco Products Company (NYSE:SON)	99.6	5,438.5	2.9	737.0	13.6	7,433.0	1.4	10.1	8.3
<b>Median</b>	<b>85.5%</b>						<b>1.1x</b>	<b>9.5x</b>	<b>9.1x</b>
<b>Mean</b>	<b>82.1%</b>						<b>1.3x</b>	<b>9.5x</b>	<b>8.4x</b>
<b>Paper and Paperboard</b>									
Bio Pappel, S.A.B. de C.V. (BMV:PAPPEL *)	94.8%	\$1,382.9	19.2%	\$231.1	16.7%	\$693.9	0.5x	3.0x	0.0x
Cascades Inc. (TSX:CAS)	59.4	3,407.0	6.4	333.4	9.8	2,045.4	0.6	6.1	5.0
Clearwater Paper Corporation (NYSE:CLW)	47.7	1,724.2	(0.5)	172.8	10.0	1,118.8	0.6	6.5	7.3
Domtar Corporation (NYSE:UFS)	91.1	5,455.0	1.2	719.0	13.2	3,867.2	0.7	5.4	4.6
Empresas CMPC S.A. (SNSE:CMPC)	80.0	6,274.5	9.0	1,455.6	23.2	11,740.5	1.9	8.1	7.3
Graphic Packaging Holding Company (NYSE:GPK)	76.0	6,023.0	13.1	920.2	15.3	7,397.3	1.2	8.0	7.1
International Paper Company (NYSE:IP)	77.7	23,306.0	4.1	3,796.0	16.3	28,604.9	1.2	7.5	6.0
Mayr-Melnhof Karton AG (WBAG:MMK)	85.3	2,676.5	2.3	359.3	13.4	2,216.6	0.8	6.2	6.5
Mondi Limited (JSE:MND)	75.1	8,565.4	3.1	1,961.3	22.9	13,624.8	1.6	6.9	7.1
Nampak Limited (JSE:NPK)	62.8	1,225.2	0.0	179.9	14.7	962.5	0.8	5.3	6.3
Neeah, Inc. (NYSE:NP)	66.9	1,034.9	5.2	121.2	11.7	1,314.3	1.3	10.8	9.5
Packaging Corporation of America (NYSE:PKG)	79.7	7,014.6	6.9	1,501.9	21.4	11,458.3	1.6	7.6	6.8
P. H. Glatfelter Company (NYSE:GLT)	62.6	866.3	(19.6)	79.8	9.2	890.5	1.0	11.2	9.0
Sappi Limited (JSE:SAP)	63.0	5,894.0	3.6	763.0	12.9	4,062.5	0.7	5.3	5.5
Smurfit Kappa Group plc (ISE:SK3)	67.0	10,242.7	3.3	1,749.5	17.1	10,270.8	1.0	5.9	5.6
Stora Enso Oyj (HLSE:STERV)	59.6	12,006.0	1.3	2,016.3	16.8	12,475.6	1.0	6.2	5.6
Svenska Cellulosa Aktiebolaget SCA (publ) (OM:SCA B)	73.8	2,300.3	(43.8)	508.6	22.1	6,945.2	3.0	13.7	8.8
WestRock Company (NYSE:WRK)	57.2	16,718.5	11.4	2,862.8	17.1	20,258.5	1.2	7.1	4.5
<b>Median</b>	<b>70.4%</b>						<b>1.0x</b>	<b>6.7x</b>	<b>6.4x</b>
<b>Mean</b>	<b>71.1%</b>						<b>1.2x</b>	<b>7.3x</b>	<b>6.2x</b>
<b>Metal and Glass</b>									
Ball Corporation (NYSE:BLL)	98.2%	\$11,635.0	13.3%	\$1,828.0	15.7%	\$25,447.0	2.2x	13.9x	11.7x
Crown Holdings, Inc. (NYSE:CCK)	97.6	11,709.0	10.6	1,671.0	14.3	15,818.9	1.4	9.5	8.8
Owens-Illinois, Inc. (NYSE:OI)	85.6	6,877.0	3.8	1,090.0	15.8	7,858.8	1.1	7.2	6.0
<b>Median</b>	<b>97.6%</b>						<b>1.4x</b>	<b>9.5x</b>	<b>8.8x</b>
<b>Mean</b>	<b>93.8%</b>						<b>1.6x</b>	<b>10.2x</b>	<b>8.8x</b>

**Footnote:**

(1) Enterprise value equals market value of equity plus net debt.

Recent transactions<sup>1,2</sup>

Target/acquiror	Sub-sector	Announce date	Close date	LTM revenue	LTM EBITDA	EBITDA margin	Last Twelve Months		
							Enterprise value <sup>(1)</sup>	EV/revenue	EV/EBITDA
<b>Tank Holdings Corp.</b> Olympus Partners	Material Handling	Mar-19	Mar-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>Consolidated Container Company, LLC</b> QualaWash Holdings, LLC	Rigid Packaging	Mar-19	Mar-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>Sound Seal Inc.</b> The Stephens Group, LLC	Flexible Packaging	Mar-19	Mar-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>Process Solutions Business of Newell Brands Inc.</b> One Rock Capital Partners, LLC	Plastic Packaging	Mar-19	Pending	640.0	N/A	N/A	500.0	0.8	N/A
<b>Loomans Group NV</b> IPL Plastics Inc.	Injection Molding	Mar-19	Mar-19	57.0	11.1	5.1	85.5	1.5	7.7
<b>Polychem Corporation</b> The Sterling Group, L.P.	Packaging Equipment	Mar-19	Mar-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>Western Industries Plastic Products LLC</b> Littlejohn Capital, LLC	Plastic Packaging	Mar-19	Mar-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>Flexo Transparent, LLC</b> C-P Flexible Packaging, Inc.	Flexible Packaging	Mar-19	Mar-19	N/A	N/A	NA	N/A	NA	NA
<b>RPC Group Plc</b> Berry Global Group, Inc.	Plastic Packaging	Mar-19	Pending	5,044.6	762.2	6.6	5,806.8	1.2	7.6
<b>Allpak Container, LLC</b> Golden West Packaging Group LLC	Corrugated Packaging	Mar-19	Mar-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>Plastics division of DS Smith Plc</b> Liqui-Box Corporation	Rigid Packaging	Mar-19	Pending	N/A	N/A	N/A	N/A	N/A	N/A
<b>Paragon Films, Inc.</b> Wellspring Capital Management LLC	Film Products	Mar-19	Apr-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>Pure-Stat Engineered Technologies, Inc.</b> Transcendia Inc.	Protective Packaging	Mar-19	Mar-19	N/A	N/A	N/A	N/A	N/A	N/A
<b>RPC Pooling Business of Ifco SYSTEMS N.V.</b> Triton; Luxinva S.A.; Triton Fund V L.P.	Plastic Containers	Feb-19	Pending	1,098.0	248.0	4.4	2,510.0	2.3	10.1
<b>Express Packaging, Inc.</b> HCI Equity Partners	Protective Packaging	Feb-19	Aug-18	N/A	N/A	N/A	N/A	N/A	N/A
<b>Clock Spring Company, Inc.</b> Wind Point Partners	Rigid Plastics	Jan-19	Pending	N/A	N/A	N/A	N/A	NA	N/A
<b>Saxco International, LLC</b> Atlas Holdings LLC	Rigid Packaging	Jan-19	Jan-19	N/A	N/A	N/A	N/A	NA	N/A
<b>Disc Graphics, Inc.</b> Oliver Printing & Packaging Co.	Flexible Packaging	Jan-19	Dec-18	N/A	N/A	N/A	N/A	NA	N/A

**Footnote:**

(1) Enterprise value equals market value of equity plus net debt.

## Deloitte Corporate Finance dedicated Packaging team



### **Will Frame – Managing Director** *(Head of Paper, Plastics & Packaging)*

Will Frame is the Americas leader for Deloitte Corporate Finance LLC (DCF). He also leads DCF’s Industrial Products Group. Now based in Chicago, Will has worked professionally in the US, Europe, and Asia and specializes in leading complex cross-border M&A transactions.

Will has been a managing director with DCF in the U.S. since October 2000. Prior to that he was an assistant director in the corporate finance division of Deloitte & Touche LLP in the United Kingdom.

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### **Bill Kerkam – Managing Director**

Bill Kerkam is a managing director with Deloitte Corporate Finance LLC (DCF). Prior to joining DCF, Bill led and managed acquisition and divestiture activities for WestRock Company (NYSE: WRK) and MeadWestvaco (NYSE: MWV). His transaction experience in the packaging sector includes leading buy-side and sell-side assignments domestically and abroad, including Western and Eastern Europe, Asia and South America.

Previously, Bill worked for two nationally recognized investment banks focusing on sell-side advisory services to companies in the general manufacturing, services and distribution sectors.

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## Select Recent DCF Packaging Transactions

 <b>Englander dZignPak LLC</b> has been acquired by  <b>Packaging Corporation of America</b> The undersigned acted as exclusive financial advisor to Englander dZignPak LLC  Deloitte Corporate Finance LLC	 <b>ACH Foam Technologies</b> has been acquired by  <b>Atlas Roofing Corporation</b> (a subsidiary of Hood Companies, Inc.) The undersigned acted as exclusive financial advisor to ACH Foam Technologies, Inc.  Deloitte Corporate Finance LLC	 <b>AGI Global Holdings Cooperatief UA</b> a portfolio company of <b>ATLAS HOLDINGS</b> <b>Atlas Holdings LLC</b> has sold its European beauty and personal care business to  <b>Mayr-Melnhof Packaging International GmbH</b> The undersigned acted as exclusive financial advisor to AGI-Shorewood Group.  Deloitte Corporate Finance LLC	 <b>Macro Plastics, Inc.</b> has been acquired by  <b>IPL Inc.</b> a subsidiary of  <b>One Fifty One plc</b> The undersigned acted as exclusive financial advisor to Macro Plastics, Inc.  Deloitte Corporate Finance LLC	 <b>Plastic Packaging Inc.</b> has been acquired by  <b>Sonoco Products Co.</b> The undersigned acted as exclusive financial advisor to Plastic Packaging Inc.  Deloitte Corporate Finance LLC	 <b>IntegraColor Ltd.</b> has been acquired by  <b>Orora Limited</b> The undersigned acted as exclusive financial advisor to IntegraColor Ltd.  Deloitte Corporate Finance LLC
 <b>Austin Foam Plastics, Inc.</b> has been acquired by  <b>Sealed Air Corporation</b> The undersigned acted as exclusive financial advisor to Austin Foam Plastics, Inc.  Deloitte Corporate Finance LLC	 <b>AGI-Shorewood Group</b> a portfolio company of <b>ATLAS HOLDINGS</b> <b>Atlas Holdings LLC</b> has divested its North American and Asian print and packaging business to  <b>Multi Packaging Solutions</b> The undersigned acted as exclusive financial advisor to AGI-Shorewood Group.  Deloitte Corporate Finance LLC	 <b>El Dorado Paper Bag Mfg. Co., Inc.</b> has been acquired by  <b>Industrial Opportunity Partners, LLC</b> The undersigned acted as exclusive financial advisor to El Dorado Paper Bag Mfg. Co., Inc.  Deloitte Corporate Finance LLC	 <b>Greif, Inc.</b> has sold its Multiwall Bag business to  <b>Industrial Opportunity Partners, LLC</b> The undersigned acted as exclusive financial advisor to Greif, Inc.  Deloitte Corporate Finance LLC	 <b>MeadWestvaco Corporation</b> has sold its European Beauty and Personal Care Folding Carton Operation to  <b>AGI-Shorewood Group</b> The undersigned acted as exclusive financial advisor to MeadWestvaco Corporation.  Deloitte Corporate Finance LLC	 <b>MeadWestvaco Corporation</b> has sold its European Tobacco and General Packaging Folding Carton Operations to  <b>AR Packaging Group AB</b> The undersigned acted as exclusive financial advisor to MeadWestvaco Corporation.  Deloitte Corporate Finance LLC

## Sources cited

### Page 2:

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