



PACKAGING

INDUSTRY UPDATE | DECEMBER 2017



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PACKAGING INDUSTRY UPDATE

INTRODUCTION

Harris Williams & Co. is pleased to present our packaging industry update for December 2017. This report provides commentary and analysis on current capital market trends and merger and acquisition dynamics within the global packaging industry.

We hope you find this edition helpful and encourage you to contact us directly if you would like to discuss our perspective on current industry trends or our relevant industry experience.

OUR PRACTICE

Harris Williams & Co. is a leading advisor to the packaging industry. Our significant experience covers a broad range of end markets, industries, and business models.

Packaging Types

- Bags
- Bottles & Cans
- Caps & Closures
- Flexible
- Labels
- Pouches
- Rigid

Materials

- Films
- Foil
- Glass
- Laminations
- Metal
- Paperboard
- Plastics
- Specialty Paper

Applications

- Cosmetics
- E-Commerce
- Food & Beverage
- Healthcare
- Industrial
- Other



Harris Williams & Co.
middle market®

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CONTACTS

Patrick McNulty
Managing Director
pmcnulty@harriswilliams.com
+1 (804) 887-6039

Brad Morrison
Director
bmorrison@harriswilliams.com
+1 (804) 915-0168

Brandt Carr
Vice President
bcarr@harriswilliams.com
+1 (804) 887-6018

STRONG MOMENTUM ACROSS THE PACKAGING INDUSTRY

DORNER

a portfolio company of

INCLINE
EQUITY PARTNERS

has been acquired by

IEQT

Provider of innovative conveyor systems for packaging-related applications

ESE

a portfolio company of

STIRLING SQUARE
CAPITAL PARTNERS

has been acquired by

RPC

Provider of injection-molded temporary waste storage solutions

TRICORBRAUN

a portfolio company of

chs|capital

has been acquired by

AEA

Distributor of value-added rigid packaging solutions

Liqui-Box
DESIGN. CONNECT. DELIVER.

a portfolio company of

THE STERLING GROUP

has been acquired by

OLYMPUS PARTNERS

Provider of flexible packaging solutions, injection-molded fitments, and related filling equipment

OR
METALLIZING

a portfolio company of

H. I. G.
CAPITAL

has been acquired by

NISHA

Manufacturer of coated and vacuum metallized paper products

Packaging Dynamics

a portfolio company of

KOHLBERG

has been acquired by

NOVOLEX
CORPORATION

a portfolio company of

WIND POINT PARTNERS

Manufacturer of flexible paper-based packaging solutions

Ranpak

a portfolio company of

ODYSSEY
SOLUTIONS, LLC

has been acquired by

R H Ô N E

Manufacturer of paper-based protective packaging solutions

MAXCESS

a portfolio company of

MERIFIN CAPITAL and

has been acquired by

WEBEX, INC.

Global provider of guiding, winding, slitting and tension control systems for web fed converting applications

H2
HILEX

a portfolio company of

TPG
GROWTH

has been acquired by

WIND POINT PARTNERS

Producer of die cut merchandise bags and film substrates

WHAT WE'RE READING

LABEL AND PACKAGE PRINTING INDUSTRY PREDICTIONS FOR 2018

Labels and Labeling 12/1/2017

It is safe to say 2017 has been another milestone year for the label and package printing industry. Innovations in conventional and digital printing technology, notably advances in inkjet, have been plentiful this year, likewise in pre- and post-press technology, consumables and software.

Read the full article [here](#).

THREE FAIL-SAFE TACTICS TO CREATE THE PERFECT PACKAGE

Packaging Digest 11/6/2017

Appearance matters, and not just in social situations. When only 20% of the 30,000 consumer products launched annually worldwide each year succeed, manufacturers — especially beauty brands — should take nothing for granted. That includes their product packaging.

Read the full article [here](#).

AUTOMATION ON THE AGENDA

Packaging News 10/31/2017

How is the rise in robotics and automation impacting our industry, and what are the challenges decision-makers face in 2017? As the food manufacturing sector is well aware, robotic automation is not a new phenomenon on the factory floor.

Read the full article [here](#).

CHANGING ROLE FOR OEMs AS CPGs GET LEANER

Packaging World 10/31/2017

Most CPGs agree that they need to bring OEMs and other suppliers together earlier in projects to get all on the same page and to clarify roles and responsibilities, especially regarding technical solutions. Both teams point out that this is a good way to increase the likelihood of a successful installation.

Read the full article [here](#).

WHAT E-COMMERCE PACKAGING IS GOING TO LOOK LIKE IN 2018

Packaging Digest 10/20/2017

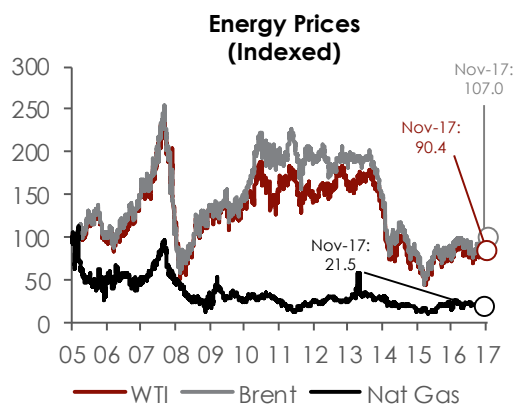
E-Commerce is taking up more of the retail market with every passing year. So if brands wish to see their businesses flourish, low standards of packaging design cannot factor into the equation. As demand for online shopping increases, so does the need for superior packaging solutions.

Read the full article [here](#).

ECONOMIC UPDATE

ENERGY PRICES ⁽¹⁾

- Crude oil prices were disrupted in September and October following the effects of multiple hurricanes and political dynamics in Iraq, but global economic data remain robust and support rising oil demand.
- Despite growing export demand and below-average storage injections – factors that could contribute to upward pressure on prices – natural gas prices remained in a steady range given milder temperatures expected in the upcoming winter.

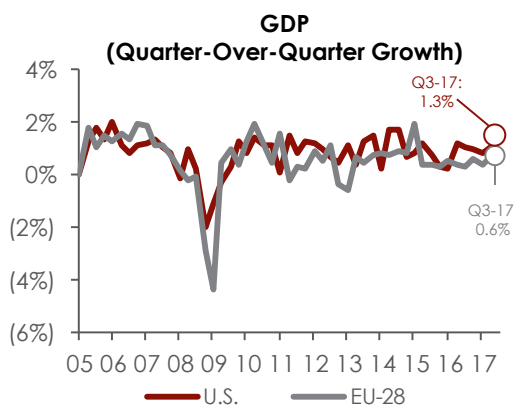
GDP ^(2,3)

U.S.

- Current dollar gross domestic product (GDP) increased 1.3% from the second quarter of 2017 to the third quarter of 2017 compared to 3.3% for real GDP.
- The increase in real GDP in the third quarter reflected positive contributions from personal consumption expenditures, private inventory investment, and non-residential fixed investment.

EU-28

- Seasonally adjusted GDP in the EU-28 rose by 0.6% in the third quarter, with 2.5% year-over-year growth.

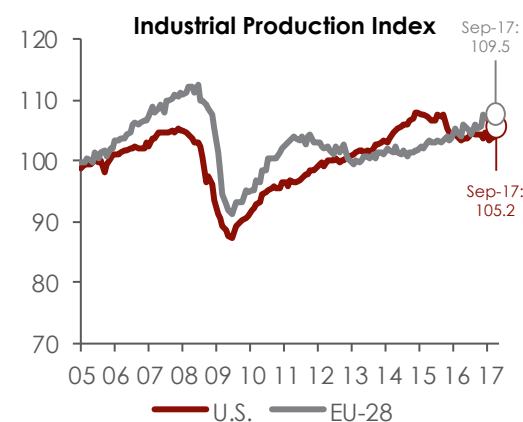
INDUSTRIAL PRODUCTION INDEX ^(3,4)

U.S.

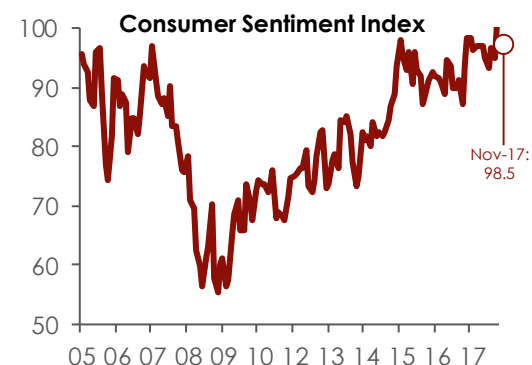
- U.S. industrial production fell 0.3% in the third quarter versus the prior year; excluding the effects of multiple large hurricanes, the index would have risen at 0.5%. Capacity utilization for the industrial sector increased 0.2% in September to 76%, a rate that is 3.9% below its long-run (1972–2016) average.

EU-28

- In September 2017 compared with August 2017, seasonally adjusted industrial production fell by 0.5% in the EU-28 due to lower production of capital goods, consumer goods, and energy.

CONSUMER SENTIMENT ⁽⁵⁾

- Consumer sentiment for the United States declined slightly to 98.5 in November 2017 from the previous month's decade-long peak of 100.7, with consumers continuing to voice certainty about their expectations for income, employment, and inflation.
- Overall, the Sentiment Index has remained largely unchanged since the start of the year at the highest levels since 2004.

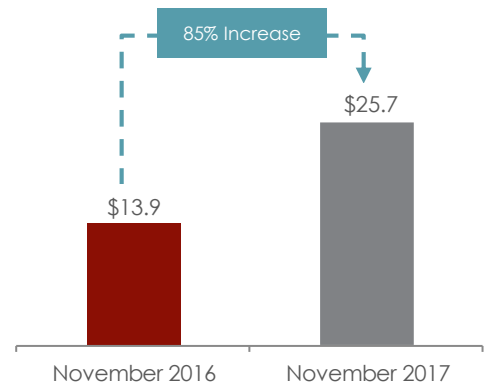


KEY THEMES

M&A ACTIVITY IN THE PACKAGING INDUSTRY ⁽⁶⁾

- M&A activity in the packaging space has been steady through the beginning of the fourth quarter of 2017.
 - On an LTM basis as of November 2017, \$25.7 billion of deal value has been announced globally vs. \$13.9 billion for the prior year LTM period.
- Packaging industry M&A remains robust globally, with the majority of 2017 targets located in Western Europe (40%), North America (35%), and the Asia Pacific region (13%).
- More than eight deals over \$1 billion have been announced or closed in 2017.

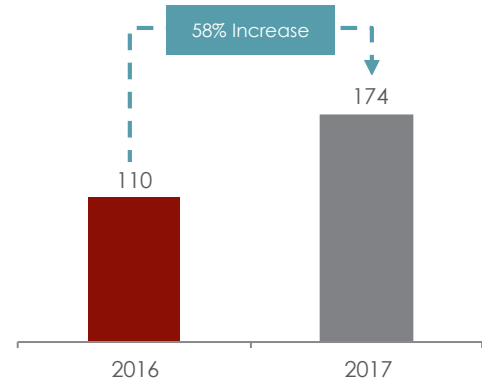
Global Packaging M&A Value (announced deal value, LTM)



TAKING FLIGHT: COMMERCIAL DRONES IN THE PACKAGING INDUSTRY ⁽⁷⁾

- A majority of drones currently in the air have been developed as cheap toys or expensive weapons, but drones are rapidly gaining popularity for a range of commercial uses, including packaging.
- Last year around 110,000 drones were sold for commercial use, according to Gartner.
- Delivery and logistics companies are focused on using drones for packaging distribution of a variety of items including foods and consumer goods.
 - Amazon, Google, and tech start-ups have begun experimenting with drone package delivery onto targets in a recipient's garden or back yard – approximately 75% of consumers expect widespread package delivery by drones in the next four years.

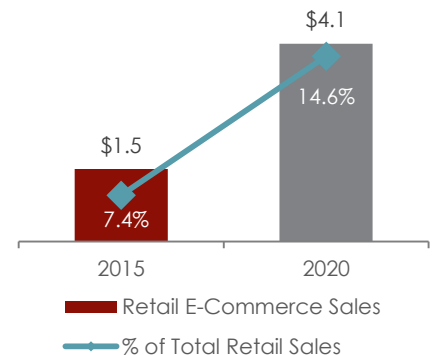
Drones Sold for Commercial Use (units in thousands)



HOW E-COMMERCE IS CHANGING THE PACKAGING LANDSCAPE ⁽⁸⁾

- E-commerce currently accounts for ~\$1.5 trillion, or ~7.4%, of the ~\$22 trillion global retail market; this share is expected to nearly double by 2020, with more people gaining access to the internet, driving significant change within the packaging industry during this period.
- Packages designed specifically for e-commerce must be durable enough to withstand the often complex supply chains involved in delivering a product to consumers; this, in turn, is expected to drive strong demand for protective packaging.
- Also, with packaging playing a much bigger part in the e-commerce customer experience, there is greater expectation for the secondary packaging to deliver brand values as well as keeping the product safe and secure.

Global E-Commerce Retail Sales (\$ in trillions)



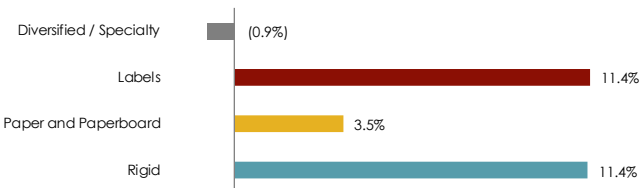
PUBLIC COMPARABLES ⁽⁶⁾

As of December 1, 2017 (\$ in millions, except per share amounts)

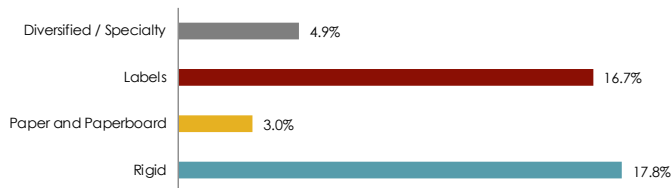
	Current Price	% of LTM High	Mkt Cap	TEV	3-Year Revenue CAGR	FY 2017E			Price / Earnings		TEV / EBITDA			Free Cash Flow Conversion	Net Debt / EBITDA
						Revenue	EBITDA	Margin	FY 2017E	FY 2018P	LTM	FY 2017E	FY 2018P		
Diversified / Specialty															
Amcor	\$11.95	91.8%	\$13,834	\$18,059	(3.0%)	\$9,101	\$1,447	15.9%	18.2x	16.5x	13.2x	12.5x	11.5x	72.3%	3.0x
Berry Global	60.08	98.2%	7,870	13,305	12.7%	7,095	1,327	18.7%	17.6x	16.4x	10.4x	10.0x	9.3x	78.9%	4.2x
Sealed Air Corporation	47.74	94.3%	8,612	11,019	(17.6%)	4,432	830	18.7%	26.5x	19.4x	10.0x	13.3x	12.1x	80.7%	1.8x
Sonoco Products Company	53.80	96.8%	5,348	6,621	(0.0%)	5,010	665	13.3%	19.3x	17.5x	11.0x	10.0x	9.3x	68.7%	1.9x
Aptargroup	87.60	96.5%	5,457	6,178	(2.3%)	2,424	469	19.3%	26.2x	24.2x	13.3x	13.2x	12.2x	66.0%	1.1x
Bemis Company	46.51	89.5%	4,223	5,749	(2.6%)	4,016	550	13.7%	19.7x	17.4x	10.5x	10.5x	9.8x	59.3%	2.8x
Huhtamaki Oyj	42.91	96.6%	4,624	5,406	6.2%	3,550	466	13.1%	19.5x	17.5x	13.1x	11.6x	10.7x	33.7%	2.1x
Greif	54.34	86.2%	2,775	4,211	(5.3%)	3,604	457	12.7%	19.0x	15.9x	9.3x	9.2x	8.3x	77.2%	2.1x
Wipac	37.70	81.4%	2,450	2,210	4.2%	891	195	21.9%	23.2x	22.7x	11.1x	11.3x	11.2x	67.1%	(1.3x)
Median		94.3%	\$5,348	\$6,178	(2.3%)	\$4,016	\$550	15.9%	19.5x	17.5x	11.0x	11.3x	10.7x	68.7%	2.1x
Mean		92.3%	\$6,133	\$8,084	(0.9%)	\$4,458	\$712	16.4%	21.0x	18.6x	11.3x	11.3x	10.5x	67.1%	2.0x
Labels															
Avery Dennison Corporation	\$112.63	98.1%	\$9,955	\$11,553	1.2%	\$6,569	\$860	13.1%	22.8x	20.5x	13.0x	13.4x	12.6x	75.2%	1.6x
CCL Industries	46.33	87.3%	8,199	9,958	16.8%	3,728	742	19.9%	24.0x	20.7x	14.7x	13.4x	12.1x	69.3%	2.3x
Multi-Color Corporation	74.10	84.0%	1,515	1,736	16.3%	1,276	218	17.1%	19.3x	16.6x	11.0x	8.0x	5.8x	65.7%	2.9x
Median		87.3%	\$8,199	\$9,958	16.3%	\$3,728	\$742	17.1%	22.8x	20.5x	13.0x	13.4x	12.1x	69.3%	2.3x
Mean		89.8%	\$6,556	\$7,749	11.4%	\$3,858	\$607	16.7%	22.0x	19.3x	12.9x	11.6x	10.2x	70.0%	2.3x
Paper and Paperboard															
International Paper Company	\$55.63	94.4%	\$22,971	\$34,572	(0.7%)	\$23,125	\$3,864	16.7%	15.9x	12.8x	10.6x	8.9x	7.8x	57.7%	3.5x
WestRock	62.40	99.7%	15,888	22,255	14.5%	14,860	2,289	15.4%	16.9x	15.2x	10.1x	9.7x	7.8x	64.5%	2.8x
Mondi	23.47	83.0%	8,620	13,402	0.3%	8,563	1,709	20.0%	13.5x	12.4x	7.4x	7.8x	7.4x	65.8%	0.9x
Packaging Corporation of America	117.40	97.2%	11,077	13,275	2.9%	6,375	1,330	20.9%	19.6x	17.4x	10.3x	10.0x	9.3x	75.2%	1.8x
Smurfit Kappa Group	30.99	94.1%	7,340	10,842	(1.9%)	10,133	1,461	14.4%	13.6x	11.4x	8.1x	7.4x	6.8x	63.9%	2.5x
DS Smith	7.24	95.6%	7,736	8,350	6.9%	7,435	955	12.8%	16.1x	14.4x	11.2x	8.7x	7.8x	57.7%	2.0x
Graphic Packaging Holding Company	15.26	96.3%	4,729	7,002	1.2%	4,397	715	16.3%	23.2x	17.9x	10.2x	9.8x	8.7x	68.3%	3.3x
KapStone Paper and Packaging Corporation	22.11	88.5%	2,144	3,728	12.7%	3,296	416	12.6%	18.9x	13.8x	10.6x	9.0x	7.8x	61.2%	4.4x
P. H. Glatfelter Company	20.69	80.9%	902	1,300	(4.3%)	1,586	160	10.1%	18.1x	14.2x	15.8x	8.1x	6.9x	(76.4%)	4.7x
Median		94.4%	\$7,736	\$10,842	1.2%	\$7,435	\$1,330	15.4%	16.9x	14.2x	10.3x	8.9x	7.8x	63.9%	2.8x
Mean		92.2%	\$9,045	\$12,747	3.5%	\$8,863	\$1,433	15.5%	17.3x	14.4x	10.5x	8.8x	7.8x	48.7%	2.9x
Rigid															
Ball Corporation	\$39.74	91.9%	\$13,911	\$21,358	8.2%	\$10,863	\$1,711	15.7%	20.4x	17.4x	12.3x	12.5x	11.2x	64.9%	4.0x
Owens-Illinois	24.19	93.4%	3,943	9,390	0.5%	6,892	1,336	19.4%	9.2x	8.6x	8.3x	7.0x	6.8x	61.5%	4.7x
RPC Group	12.28	88.8%	5,068	6,585	35.5%	4,892	803	16.4%	13.0x	12.0x	10.7x	8.2x	7.7x	56.9%	2.4x
Silgan Holdings	28.72	88.4%	3,170	6,107	1.3%	4,066	557	13.7%	17.5x	15.2x	11.6x	11.0x	9.8x	68.7%	5.5x
Median		90.3%	\$4,506	\$7,987	4.8%	\$5,892	\$1,069	16.1%	15.2x	13.6x	11.2x	9.6x	8.8x	63.2%	4.3x
Mean		90.6%	\$6,523	\$10,860	11.4%	\$6,678	\$1,102	16.3%	15.0x	13.3x	10.7x	9.7x	8.9x	63.0%	4.2x
Overall Median		92.7%	\$5,402	\$7,676	1.3%	\$4,662	\$773	16.1%	19.0x	16.4x	10.7x	9.9x	9.0x	65.7%	2.6x
Overall Mean		91.4%	\$7,184	\$10,109	4.3%	\$6,317	\$1,028	16.2%	18.7x	16.1x	11.0x	10.0x	9.1x	59.5%	2.7x

PUBLIC MARKETS OVERVIEW (6)

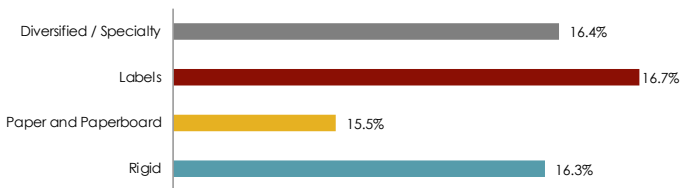
3-YEAR REVENUE CAGR (2014 – 2017E)



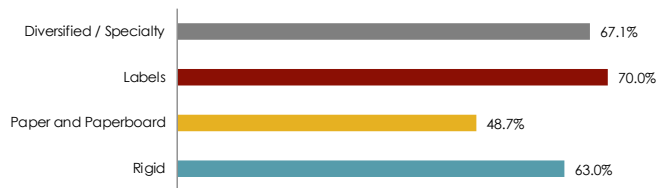
3-YEAR EBITDA CAGR (2014 – 2017E)



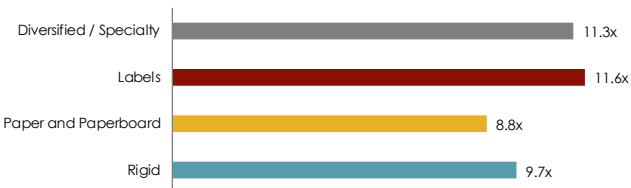
AVERAGE EBITDA MARGIN (2017E)



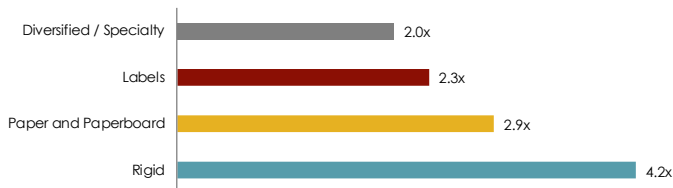
FREE CASH FLOW CONVERSION (2017E)



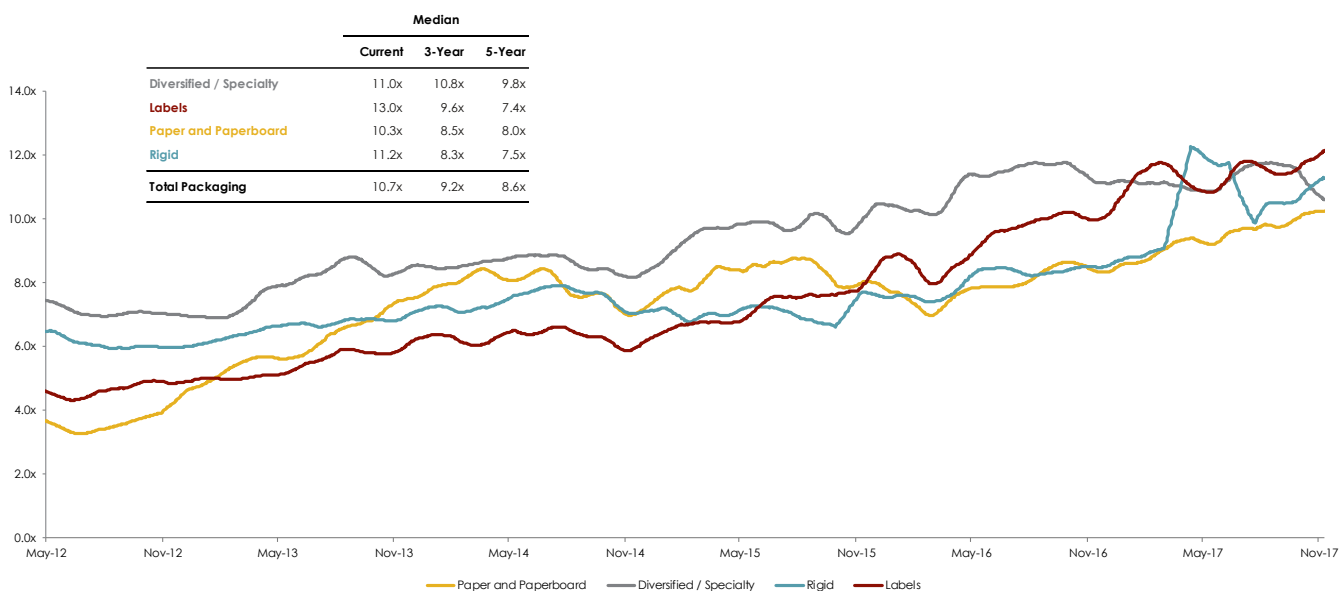
TOTAL ENTERPRISE VALUE / 2017E EBITDA




































NET DEBT / LTM EBITDA



PUBLIC COMPARABLES (30-DAY ROLLING AVERAGE OF MEDIAN TEV / LTM EBITDA)



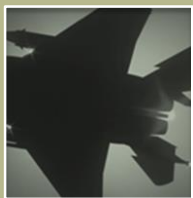
SELECT M&A ACTIVITY (6,9)

Date	Target	Target Business Description	Acquirer
Pending	Ring Container 	Ring Container manufactures PET and HDPE plastic packaging and containers.	MSD Partners 
Pending	EcoPack 	EcoPack makes integrated packaging and paper products primarily for the food sector.	DS Smith 
Dec-17	Tray-Pak Corp. 	Tray-Pak offers thermoformed packaging supplies.	Graham Partners 
Dec-17	IntraPac 	IntraPac designs and manufactures of specialty rigid packaging solutions.	ONCAP 
Nov-17	Shore Plastic Technologies 	Shore Plastic Technologies offers injection mold design, project engineering, and mold and process validation services.	Comar 
Oct-17	International Paper / N. America Cons. Packaging Bus. 	International Paper's North America consumer packaging business produces paperboard and paper-based foodservice products.	Graphic Packaging 
Oct-17	Brook & Whittle 	Brooke & Whittle manufactures premium prime label solutions.	Snow Phipps 
Oct-17	Tekni-Plex 	Tekni-Plex develops and manufactures packaging materials, medical compounds and precision-crafted medical tubing solutions.	Genstar 
Aug-17	PAX Corrugated Products 	PAX Corrugated designs and manufactures corrugated boxes, specialty boxes, corrugated display containers, and other corrugated packaging.	Georgia-Pacific 
Aug-17	Hanna Group Pty Ltd. 	Hanna manufactures folding cartons for the beverage, food, confectionary, and healthcare sectors.	WestRock Co. 
Jul-17	Constantia Labels GmbH 	Constantia produces plastic labels for leading drink manufacturers.	Multi-Color Corp. 
Jul-17	Boxmore Packaging (Pty) Ltd. 	Boxmore provides plastic packaging products such as bottles, plastic containers, jars, closures, and lids.	ALPLA Werke Alwin Lehner GmbH & Co. KG 
Jun-17	Salbro Bottle, Inc. 	Salbro manufactures and distributes plastic and glass bottles and lids.	AEA / TricorBraun, Inc. 
Jun-17	Clear Lam Packaging 	Clear Lam develops and manufactures flexible and rigid packaging materials primarily for consumer packaged goods companies.	Sonoco Products 
Jun-17	Combined Container Industries LLC 	Combined Container produces corrugated boxes, sheets, and point-of-purchase displays.	WestRock Co. 
Jun-17	Duravant 	Duravant designs and manufactures engineered equipment for the food processing, packaging, and material handling industries.	Warburg Pincus 
Jun-17	Faerch Plast 	Faerch Plast produces rigid plastic packaging for ready meals and protein food trays.	Advent International 
May-17	Transcendia 	Transcendia manufactures custom engineered films for critical product components across a variety of end markets.	Goldman Sachs 
May-17	Charter NEX 	Charter NEX produces specialty films used in flexible packaging and other critical performance applications.	Leonard Green & Partners 

OUR FIRM

Harris Williams & Co. has a broad range of industry expertise, which creates powerful opportunities. Our clients benefit from our deep-sector experience, integrated industry intelligence and collaboration across the firm, and our commitment to learning what makes them unique. For more information, visit our website at www.harriswilliams.com/industries.

Aerospace, Defense
& Government
Services



Building Products
& Materials



Business
Services



Consumer



Energy, Power &
Infrastructure



Healthcare
& Life Sciences



Industrials



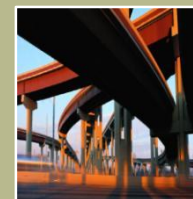
Specialty
Distribution



Technology,
Media & Telecom



Transportation
& Logistics



HARRIS WILLIAMS & Co. OFFICE LOCATIONS

UNITED STATES

Boston

One International Place
Suite 2620
Boston, Massachusetts 02110
Phone: +1 (617) 482-7501

Cleveland

1900 East 9th Street
20th Floor
Cleveland, Ohio 44114
Phone: +1 (216) 689-2400

Minneapolis

222 South 9th Street
Suite 3350
Minneapolis, Minnesota 55402
Phone: +1 (612) 359-2700

Richmond (Headquarters)

1001 Haxall Point
9th Floor
Richmond, Virginia 23219
Phone: +1 (804) 648-0072

San Francisco

575 Market Street
31st Floor
San Francisco, California 94105
Phone: +1 (415) 288-4260

Washington, D.C.

800 17th St. NW
2nd Floor
Washington, D.C. 20006
Phone: +1 202-207-2300

EUROPE

Frankfurt

Bockenheimer Landstrasse 33-35
60325 Frankfurt
Germany
Phone: +49 069 3650638 00

London

63 Brook Street
London W1K 4HS, England
Phone: +44 (0) 20 7518 8900

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SOURCES

1. US Energy Information Administration
2. Bureau of Economic Analysis
3. Eurostat
4. Federal Reserve Economic Data
5. University of Michigan
6. Factset
7. The Economist
8. Packaging World
9. Mergermarket

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