



## Graphic Packaging Holding Co. (NYSE: GPK)

October 30, 2020

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# Agenda

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**1** Company Overview

**2** Industry Outlook

**3** Investment Thesis

**4** Valuation

**5** Catalysts and Risks

**6** Recommendation

# Graphic Packaging Holding Co. (NYSE: GPK)

## Business Description

- GPK provides paper-based packaging solutions to food, beverage, foodservice, and other consumer companies
- Three segments: Paperboard Mills, Americas Paperboard Packaging, and Europe Paperboard Packaging
- Aside from its primary revenue streams, GPK also designs and manufactures specialized packaging machines and installs them at customer plants
- Presently owning, controlling, or holding rights to more than 2,400 US and foreign patents

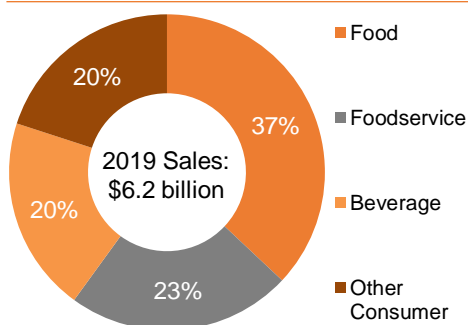
## Management Team



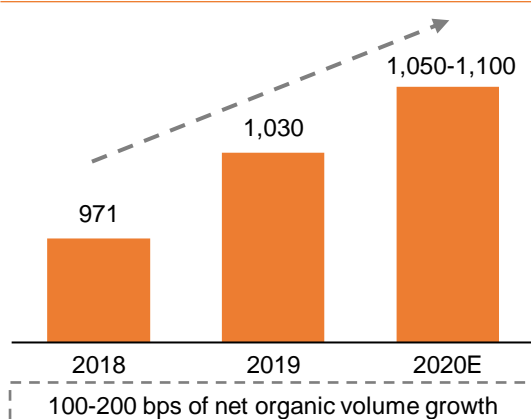
Name	Michael P. Doss	Michael Farrell	Stephen R. Scherger	Joseph P. Yost
Position	President and CEO	Executive VP, Mills	Executive VP and CFO	President (Americas)
Years Exp.	30+	15+	30+	20+
Background	Joined GPK in 1990 and has served as COO and Vice President	Previously served as Senior Vice President, Supply Chain	Joined GPK in 2012, previously worked at MeadWestvaco Corporation	Joined GPK in 2000, previously served as Senior VP, Beverages

## Key Information

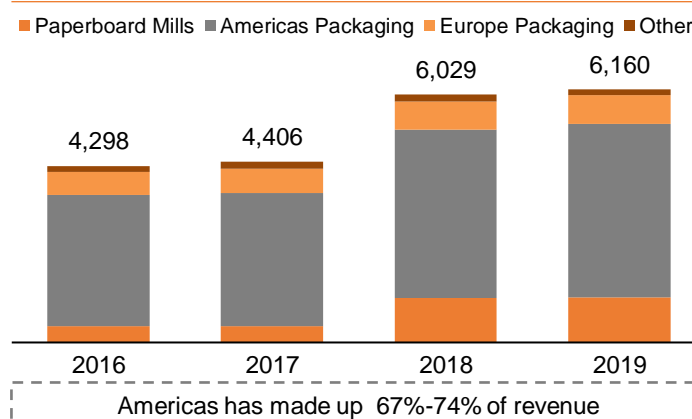
End-Market Exposure



Adj. EBITDA (\$US mm)

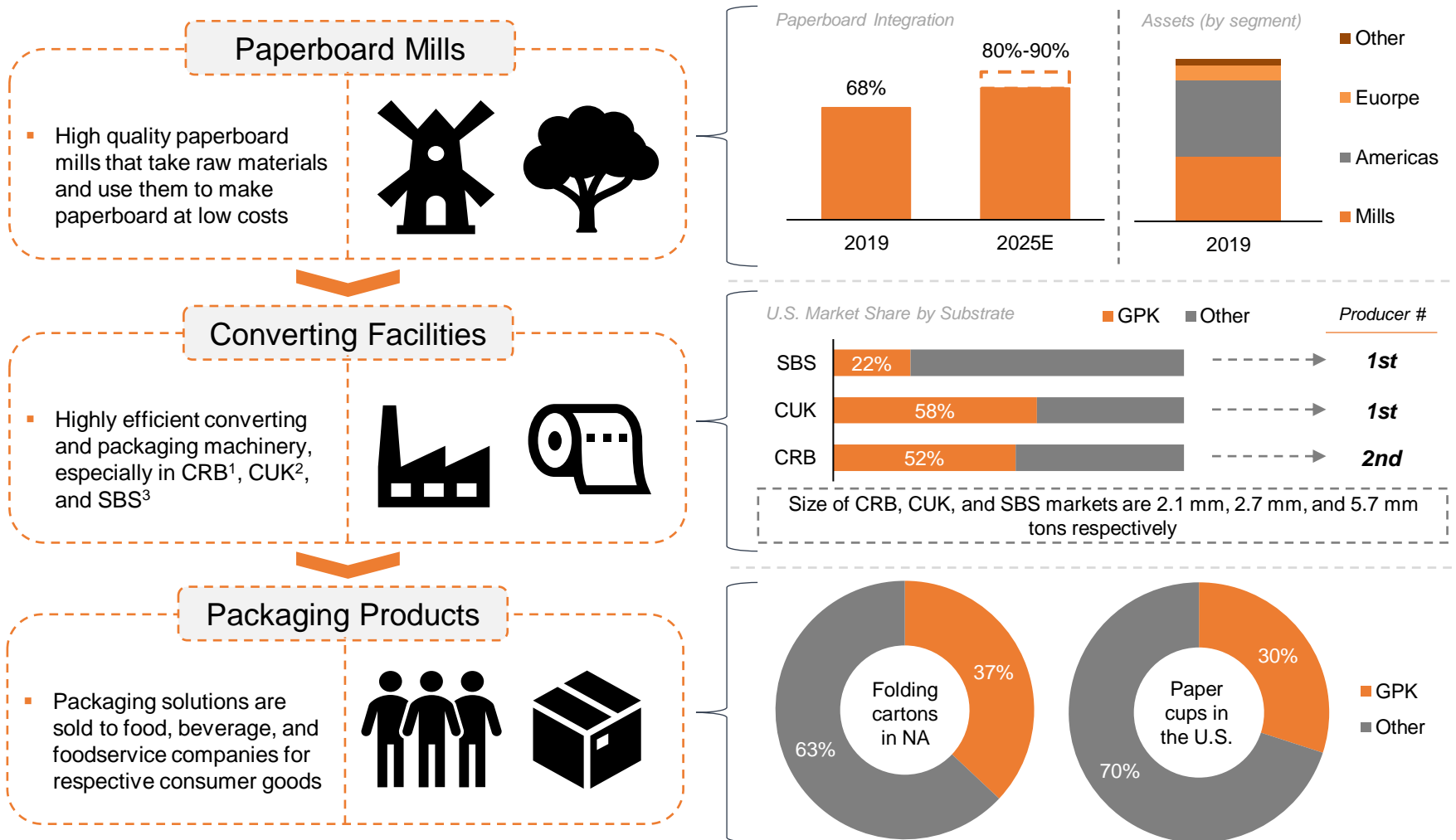


Revenue Segmentation (\$US mm)



# Vertically Integrated Business Model

## 70% Vertical Integration Results in Best-In-Class EBITDA Margins

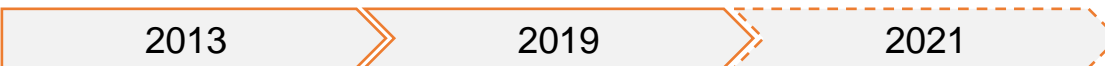


# Shifting Customer Aspirations

## GPK's Sustainability Initiatives are Highly Aligned with Key Customers

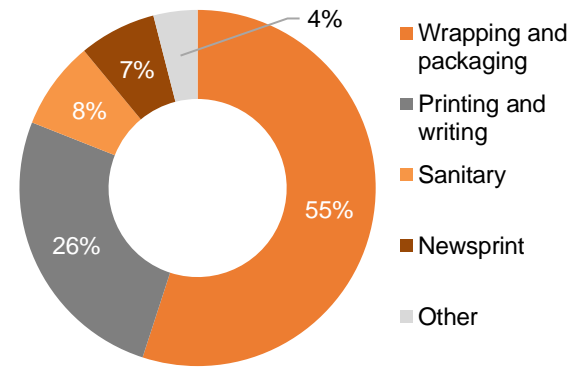
 <p>Recyclable Packaging <b>100% by 2030</b></p> <p>Recycled Content <b>50% by 2030</b></p>	 <p>Recyclable / Reusable <b>100% by 2025</b></p> <p>Elimination of Plastics <b>100% by 2024</b></p>	 <p>PBP R/R/C <b>100% by 2025</b></p> <p>PBP Recycled Content <b>17% by 2025</b></p>	 <p>R/R/C/B <b>100% by 2025</b></p> <p>Recycled Content <b>30% by 2025</b></p>
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Paperboard packaging will emerge as a winner among the solutions preferred by consumers, \$5 bn addressable market estimated in North America and Europe



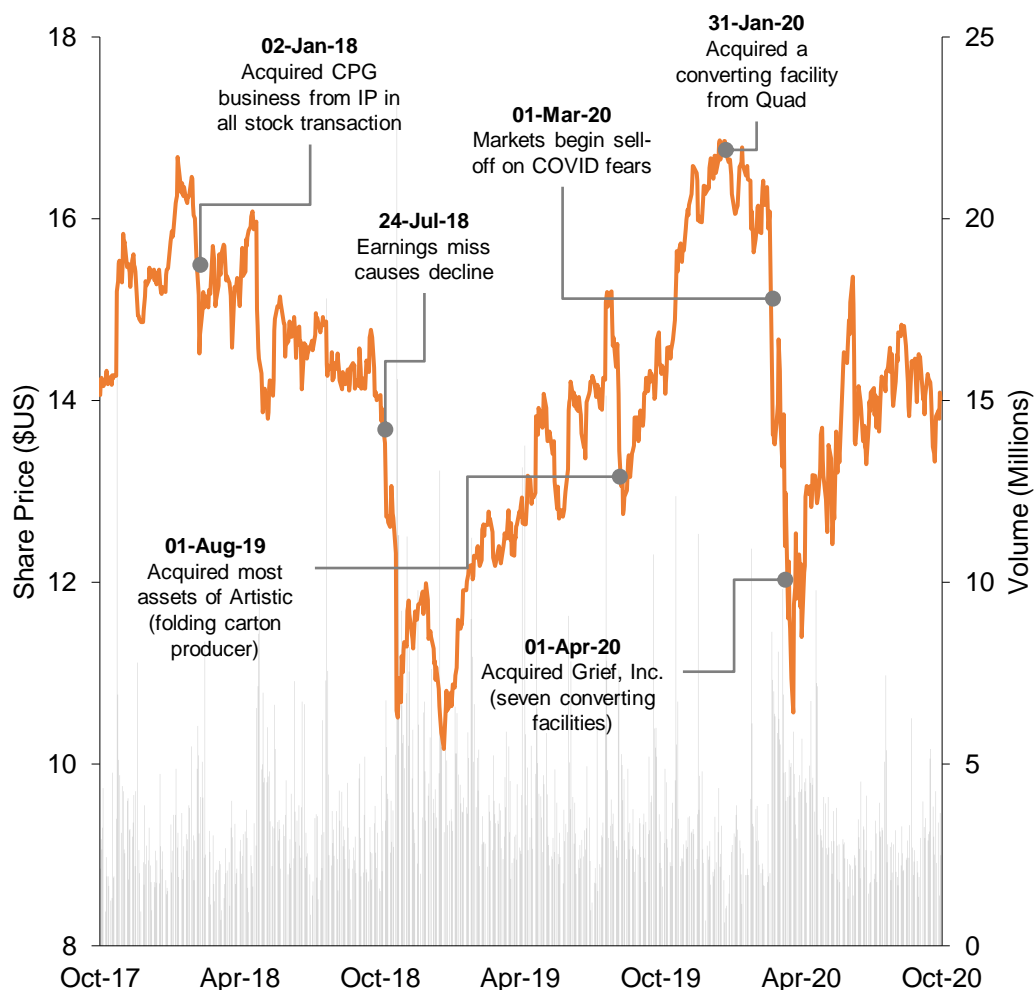
	2013	2019	2021
<b>Foam Cups</b>	<ul style="list-style-type: none"> <li>✗ Renewable</li> <li>✗ Recyclable</li> <li>✗ Compostable</li> </ul>	<ul style="list-style-type: none"> <li>✓ 90% Renewable</li> <li>✓ Recyclable</li> <li>✗ Compostable</li> </ul>	<ul style="list-style-type: none"> <li>✓ 90% Renewable</li> <li>✓ Recyclable</li> <li>✓ Commercially Compostable</li> </ul>
<b>PE Coated Paperboard Cups</b>			
<b>PE-Free Cups (100% Plant-Based)</b>			

Global Paper Consumption (in tonnes)



# PV Chart and Capitalization Table

## Price-Volume Analysis



## Market Data

### Capitalization

Share Price (30-Oct-2020)	(\$US)	\$13.76
Basic Shares Outstanding	(mm)	277.0
Diluted Securities	(mm)	0.7
<b>Market Capitalization</b>	<b>(\$US mm)</b>	<b>3,821</b>
(-) Cash & Equivalents	(\$US mm)	(56)
(+) Short-Term Debt	(\$US mm)	496
(+) Long-Term Debt	(\$US mm)	3,197
(+) Minority Interest	(\$US mm)	406
<b>Enterprise Value</b>	<b>(\$US mm)</b>	<b>7,865</b>

### Trading Multiples

EV / 2019A EBITDA	-	8.0x
EV / 2020E EBITDA	-	7.4x
EV / 2021E EBITDA	-	7.2x
P / 2019A EPS	-	19.7x
P / 2020E EPS	-	13.0x
P / 2021E EPS	-	12.2x

### Market Data

52-Week High	(\$US)	\$16.95
% of 52-Week High	(%)	81.2%
52-Week Low	(\$US)	\$10.41
Beta	-	1.22

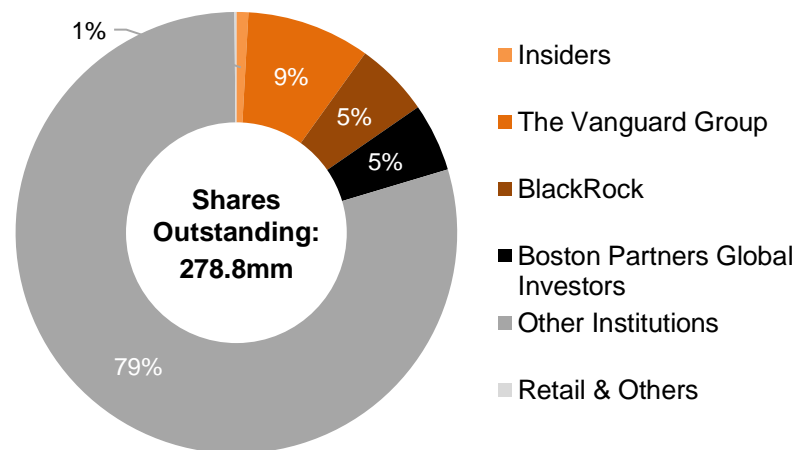
# Shareholder Overview

## Shareholder Summary

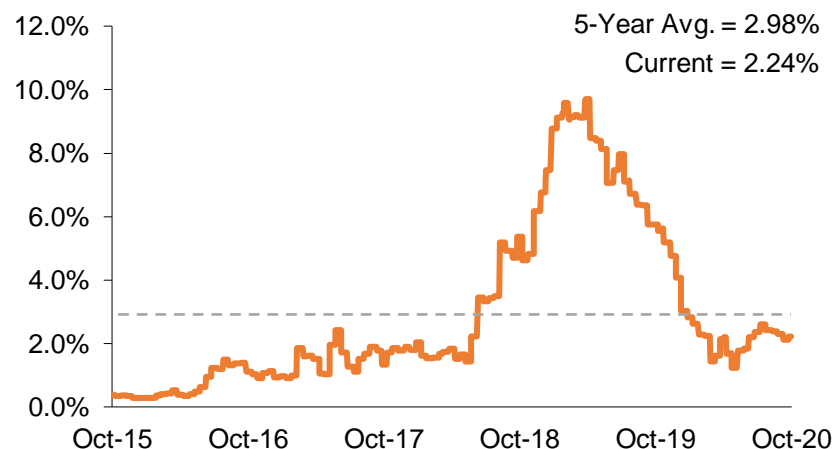
(in millions)

	# of Shares Held	% of Shares Outstanding
<b>Insiders</b>		
The Rossy Family Foundation	1.1	0.4%
Rossy, Laurence	0.3	0.1%
Rossy, Neil	0.1	0.0%
Robillard, Geoffrey	0.1	0.0%
Other Insiders	0.7	0.3%
<b>Total Insiders</b>	<b>2.4</b>	<b>0.9%</b>
<b>Institutions</b>		
The Vanguard Group	25.2	9.0%
BlackRock	15.2	5.5%
Boston Partners Global Investors	13.9	5.0%
Fuller & Thaler Asset Management	13.1	4.7%
Shapiro Capital Management	12.6	4.5%
MFS Investment Management	11.6	4.2%
American Century Investment Management	9.3	3.3%
Wellington Management Group	8.6	3.1%
Manning & Napier Advisors	8.3	3.0%
Dimensional Fund Advisors	7.9	2.8%
J.P. Morgan Asset Management	7.2	2.6%
Handelsbanken Asset Management	6.7	2.4%
Other Institutions	136.3	48.9%
<b>Total Institutions</b>	<b>276.0</b>	<b>99.0%</b>
Retail & Other Investors	0.4	0.1%
Public Float	0.0	0.0%
<b>Total Basic Shares Outstanding</b>	<b>278.8</b>	<b>100.0%</b>

## Ownership Structure



## Short Interest



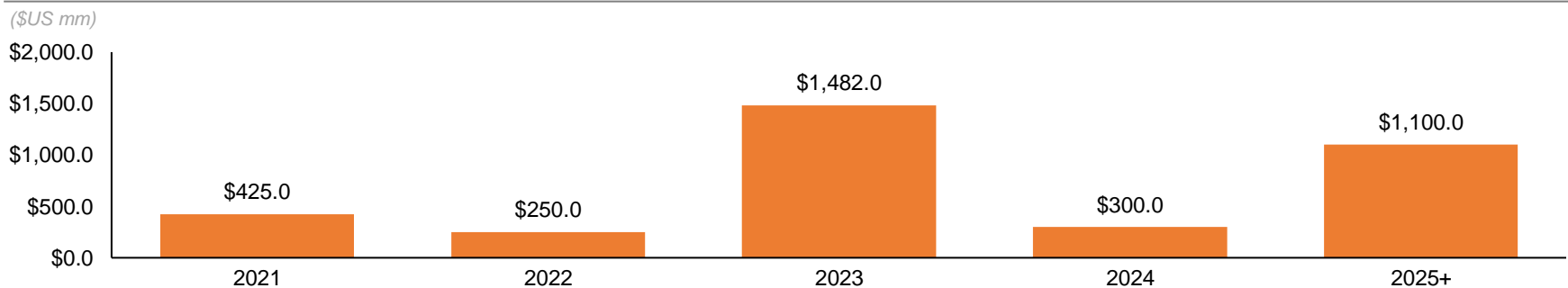
# Liquidity Analysis

## Debt Snapshot

(\$US mm)					Debt Summary		Key Metrics	
	Maturity	Coupon	Amount	Leverage				
<b>Secured Debt</b>							LTM EBITDA	<b>\$856.7</b>
Senior Secured Revolving Credit Facility	2023	L + 152	\$113.2		Total Debt/EBITDA		<b>4.3x</b>	
Senior Secured Term Loan	2023	L + 162	\$1,368.8		Net Debt/EBITDA		<b>4.3x</b>	
<b>Total Secured Debt</b>			<b>\$1,482.0</b>	<b>1.7x</b>	Interest Coverage		<b>6.6x</b>	
<b>Unsecured Debt</b>							Total Cash Position	<b>\$55.5</b>
Senior Notes (3.50%)	2029	3.50%	\$350.0					
Senior Notes (3.50%)	2028	3.50%	\$450.0					
Senior Unsecured Notes (4.75%)	2027	4.75%	\$300.0					
Senior Unsecured Notes (4.125%)	2024	4.13%	\$300.0					
Senior Unsecured Notes (4.875%)	2022	4.88%	\$250.0					
Senior Unsecured Notes (4.75%)	2021	4.75%	\$425.0					
<b>Total Unsecured Debt</b>			<b>\$2,075.0</b>	<b>2.4x</b>				
<b>Total Debt</b>			<b>\$3,557.0</b>	<b>4.2x</b>				
Total Finance Lease Liabilities			\$140.7					
<b>Total Debt and Finance Leases</b>			<b>\$3,697.7</b>	<b>4.3x</b>				

**GPK has a relatively small cash balance but has about \$1.3bn in revolver capacity. The firm has a high Interest Coverage ratio, insulating the company from liquidity risk.** The LC Special Situations team believes that GPK has the ability to refinance existing debt and resolve near term cash shortages through its under-drawn revolving facility.

## Debt Maturity Schedule





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# Paperboard Industry Overview

## What is it?

- Paperboard packaging is a thick, paper-based material that provides foldability and protection for a wide variety of products including food, beverage, foodservice, and other consumer products
- Currently one of the most attractive sub-sectors in the paper industry because of exposure to relatively stable consumer-facing end markets, growing demand, and high levels of consolidation
- There are three primary grades: solid bleached sulfate (SBS), coated unbleached kraft (CUK), and coated recycled paperboard (CRB)

## SBS, CUK, and CRB

- Each grade has its own supply/demand dynamics and mixes that affect margins
- SBS is largest and represents 55% of US volume
- The US market is extremely consolidated: the top three producers make 66% of SBS, 100% of CUK, and 91% of CRB
- SBS and CUK are primarily virgin fiber grades (higher selling points as they are more expensive to produce) and CRB is 100% recycled

## Paperboard Summary Product Overview

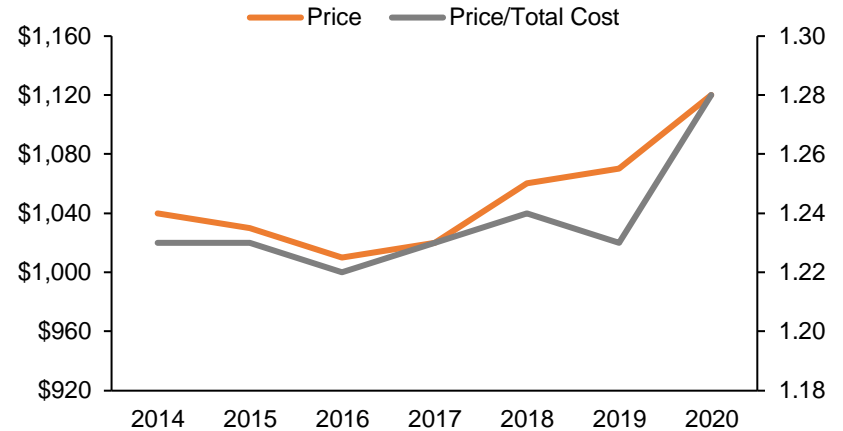
Product	Fiber Type	End Markets	Products	Major Producers	US Market Size
Solid Bleached Sulphate (SBS)	Virgin	Consumer	Medical Packaging Milk & Juice Cartons Perfume Frozen Foods	   	5.7mm tons
Coated Unbleached Kraft (CUK)	Virgin	Consumer	Beverage Carriers Frozen Foods Pharma Packaging	 	2.7mm tons
Coated Recycled Board (CRB)	Recycled	Consumer	Cereal Facial Tissue Soap & Laundry Dry Food	   	2.1mm tons

# Paperboard Industry Overview (cont'd)

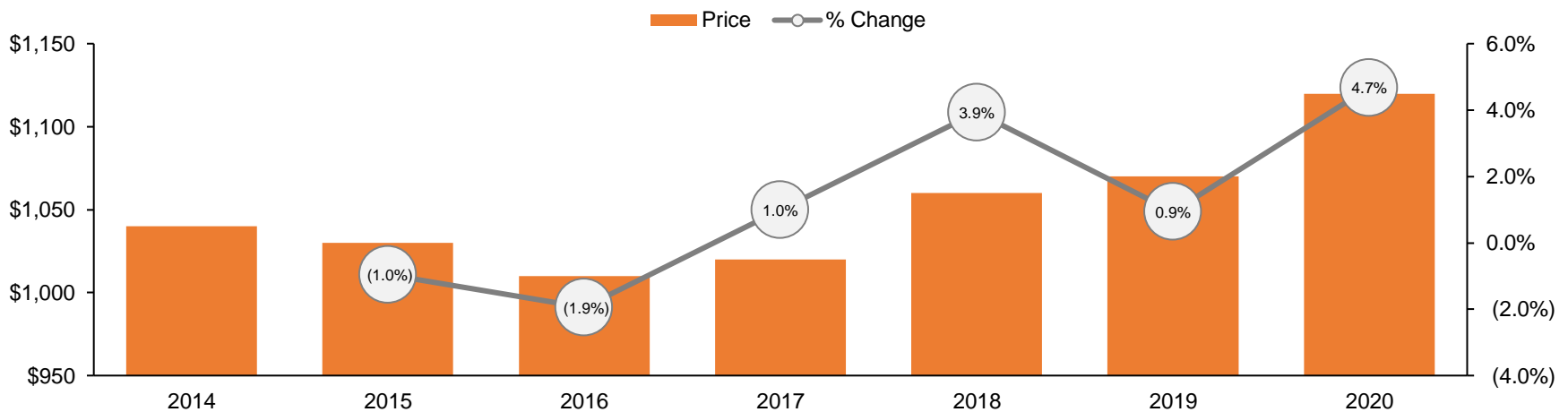
## Solid Bleached Sulfate (SBS)

- Considered the high-end grade of paperboard because of its high strength, high shelf appeal (bleached and perfectly white inside and out)
- More hygienic and pure grade with no smell or taste – often used in higher end general packaging
- Top 5 players have nearly 90% of market – SBS is most fragmented within paperboard and price increases tend to be less volatile
- Three primary end uses for SBS are folding cartons (38%), cupstock (18%), and liquids (23%)

## SBS Price/Total Cost (\$/tn)



## SBS Price (\$/tn)



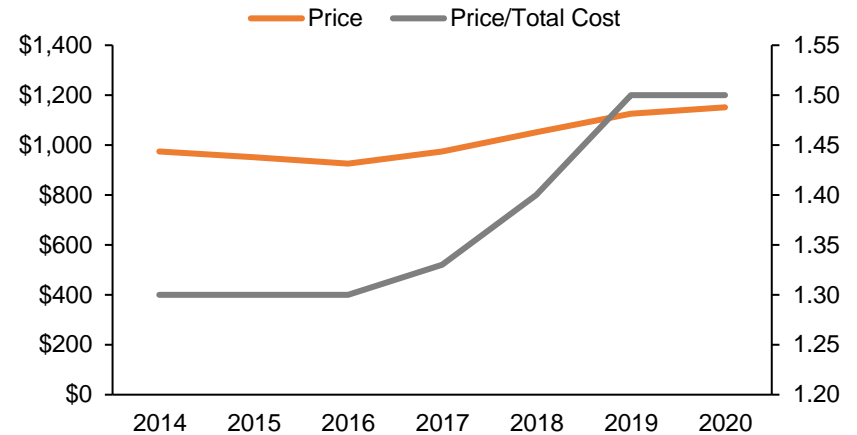
Source(s): Equity Research

# Paperboard Industry Overview (cont'd)

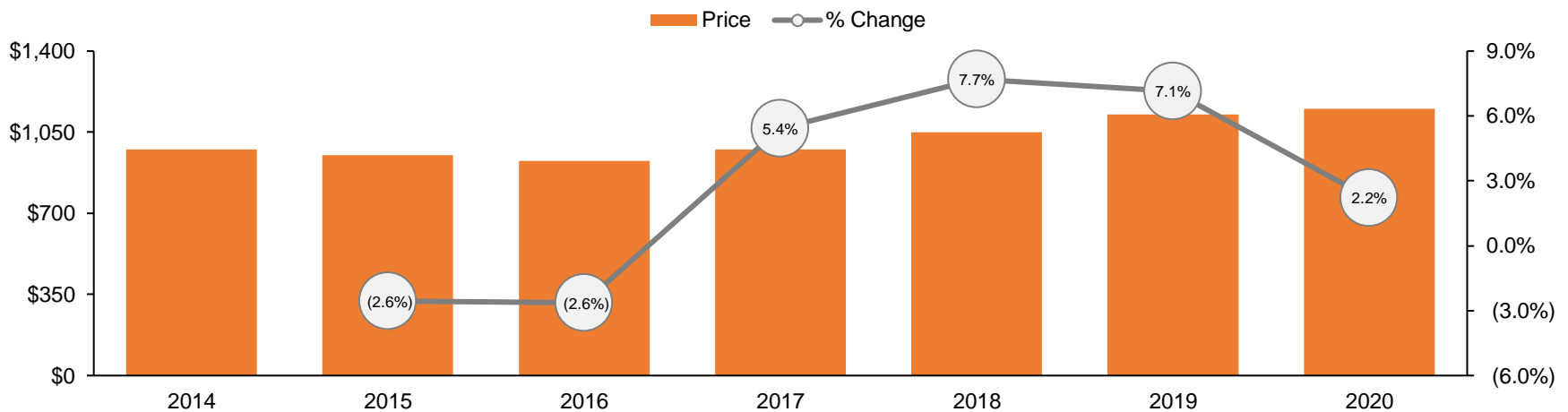
## Coated Unbleached Kraft (CUK)

- CUK is a premium paperboard with superior strength ideal for frozen foods and beverages
- Specialized high-quality grade of coated paperboard that has wet and dry tear strength and can print high resolution graphics
- Typically priced at a discount to SBS because of lower shelf appeal
- Can be substituted in the beverage end market with plastic and corrugated packaging which are less expensive

## CUK Price/Total Cost (\$/tn)



## CUK Price (\$/tn)



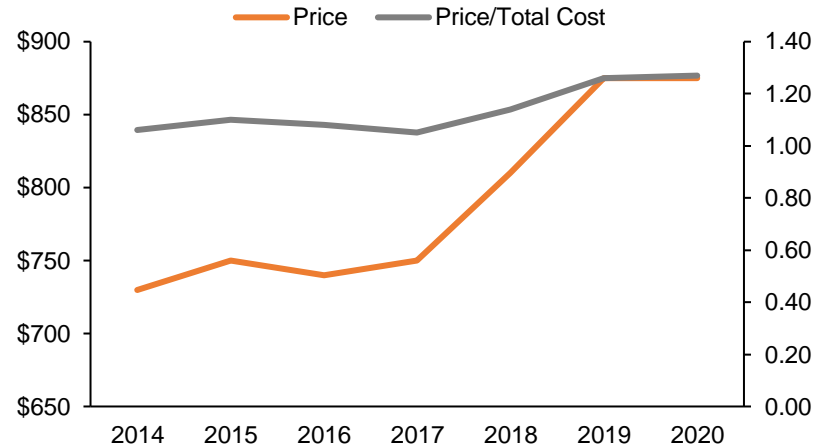
Source(s): Equity Research

# Paperboard Industry Overview (cont'd)

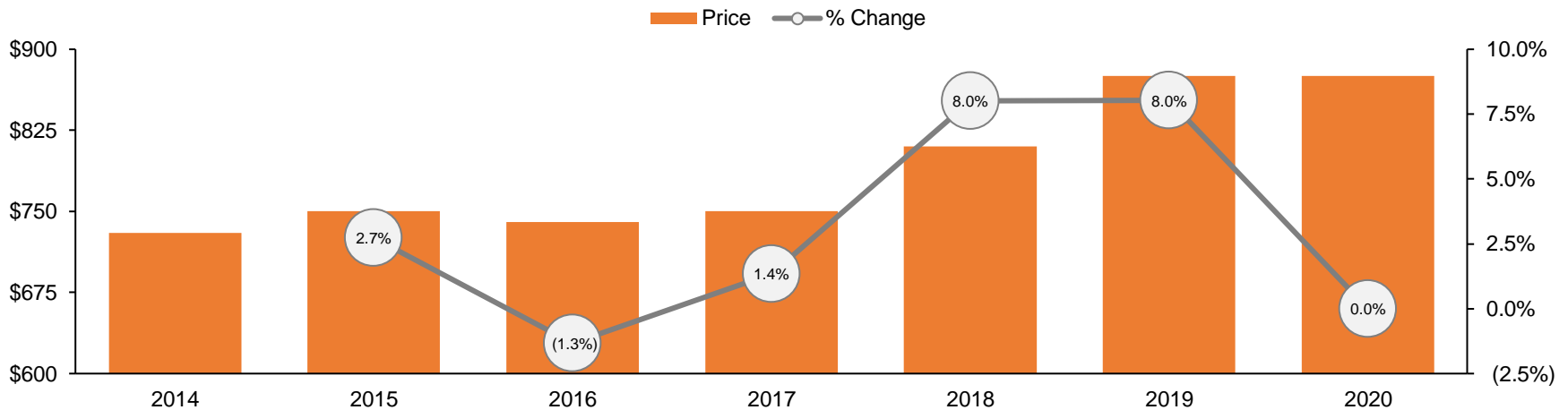
## Coated Recycled Board (CRB)

- Considered value grade because it has less shelf appeal (unbleached) and lower strength (made from recycled fiber) – most environmentally friendly
- Manufacturing entails repulping the recycled fibers, forming on paper machines and clay coating for appearance and printability of graphics
- Lower shelf appeal and low strength characteristics limit the applications of CRB to cereal boxes, cookie and cracker packaging, paper goods packaging, soap & laundry packaging, etc.

## CRB Price/Total Cost (\$/tn)



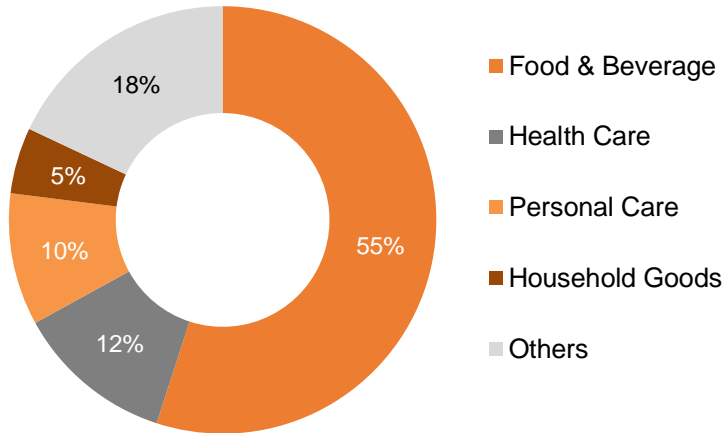
## CRB Price (\$/tn)



Source(s): Equity Research

# End Market Overview

## Paperboard Industry End Market Exposure



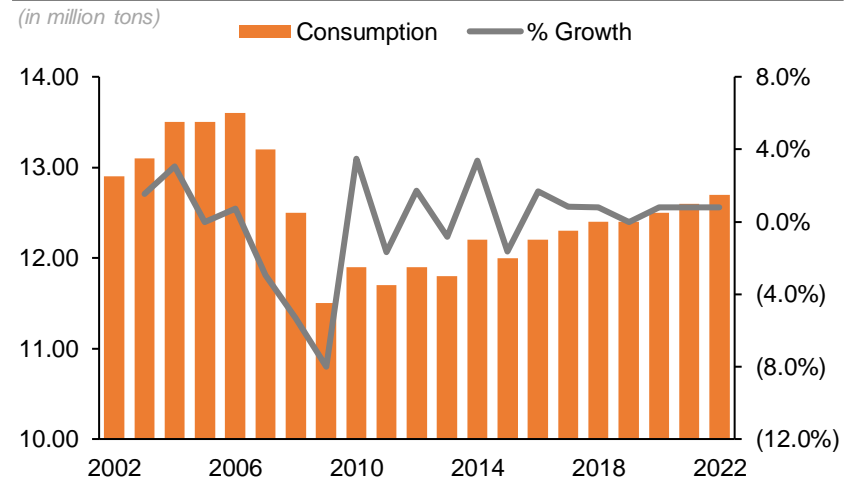
## Foodservice

- End market services prepared foods including snacks, quick serve foods for restaurants, and other food service products like disposable paper cups
- GPK is the leading producer in NA, has over ~4,000 SKUs and nearly 80% of sales are to QSRs
- End market grows at about 1-1.5% as paper-based products continue to take share from foam and polystyrene products

## Food and Beverage

- End market includes paper-based packaging for cereal, desserts, pasta, dry & frozen foods, etc.
- These markets are highly stable and defensive but with low to slightly declining growth – GPK has kept volumes flat by shifting to mid-tier customers
- GPK enjoys a leading global market position across all paperboard multipack packaging with 80% market share
- Paperboard is gaining market share in beer market, and despite declining soft drink volume, sparkling water, teas, and energy drinks offset this decline

## North American Paperboard Demand



# INDUSTRY OUTLOOK

## Why Now?

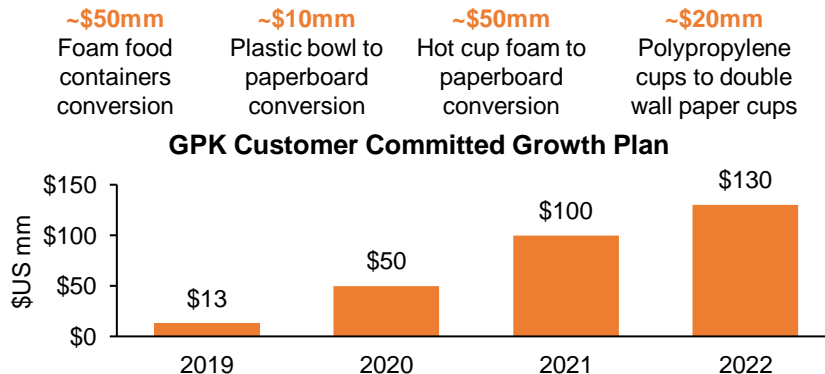
### \$5bn TAM in NA and EU Paperboard Conversions



GPK management is targeting 10-15% of TAM from 2020-2025

### ESG and Environmental Concerns From Customers

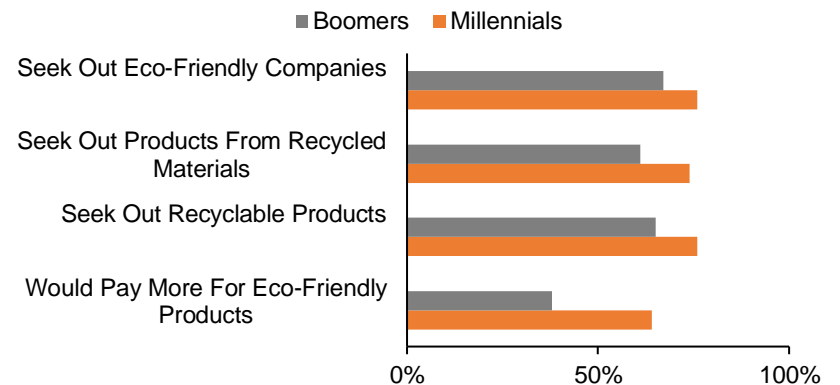
- Customers seek to improve sustainability profile and enhanced premium impact/brand messaging



### Demand Increase – Ecommerce and Food Delivery

- Direct to consumer deliveries through both Ecommerce and food delivery has pushed demand higher in recent years
- Despite weakness in restaurant demand due to COVID, increased customers shopping through delivery alternatives has offset the decline
- Firms like GPK stand to benefit from ESG tailwinds, regain food service volumes post-COVID, and maintain growth in food and beverage markets given demand for sustainable packaging is at all time high

### Shifting Consumer Preferences



Consumers' negative perception of foam and plastic items is driving replacement with low cost options that have functional similarities

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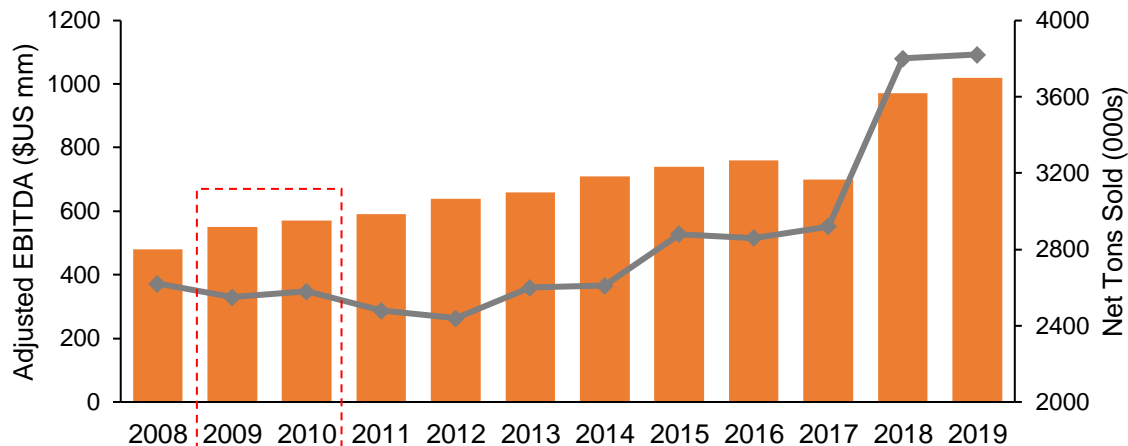


# Superior Business Model

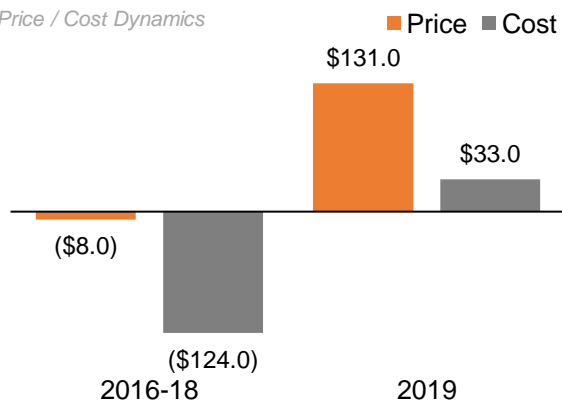
## Recession Resilient Due to Pricing Power

- GPK's pricing power exhibited by steady EBITDA levels despite declining volumes
- More specifically, core folding carton volume declined 3.6%, and EBITDA improved by 14% to \$556 million
- Out of the \$81 million increase, 66% (\$54 million) was driven by positive price / cost relationship, productivity, and synergy realization
  - The other \$24 million were acquired

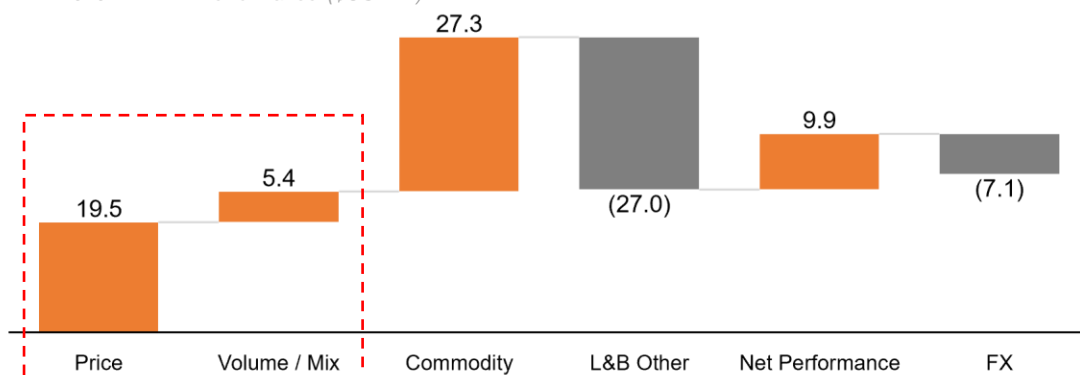
Volume vs EBITDA



Price / Cost Dynamics



H1 2020 EBITDA Performance (\$US mm)



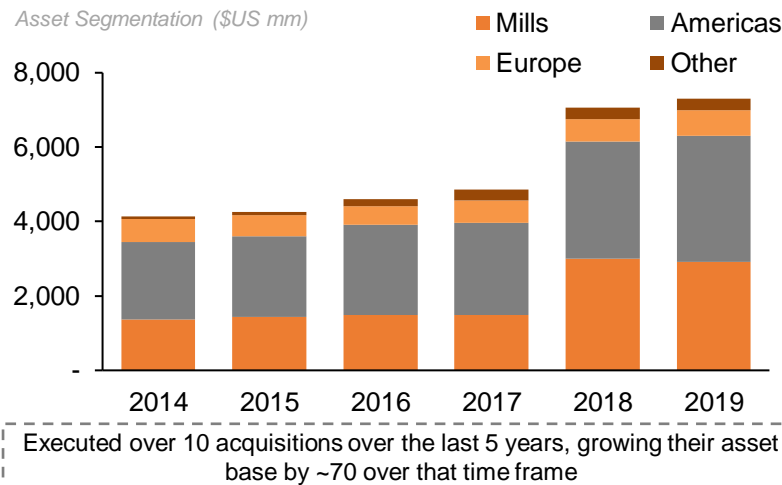
Can easily adjust pricing quickly regardless of market environment and commodity cost fluctuations

COVID-19 had a minimal impact on the business (according to management) and the company was also able to drive EBITDA by increasing price; 31% of increase is attributed to price

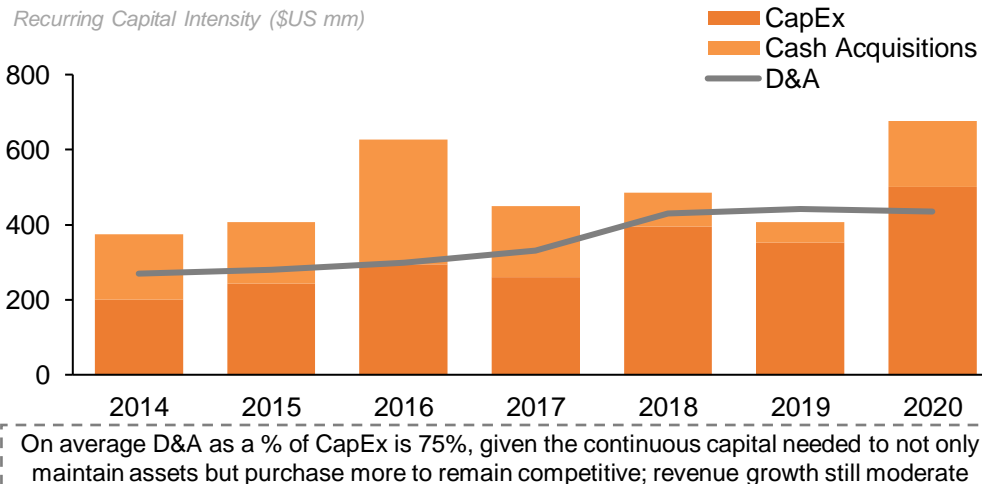
# Superior Business Model (cont'd)

## Capital Intensity Creates Large Barriers to Entry, Hence the Duopoly

Location	Product	# of Machines	Net Tons Produced
West Monroe, LA	CUK	2	910,759
Macon, GA	CUK	2	708,496
Texarkana, TX	SBS	2	607,330
Augusta, GA	SBS	2	583,147
Kalamazoo, MI	CRB	2	493,130
Battle Creek, MI	CRB	2	210,673
Middletown, OH	CRB	1	169,475

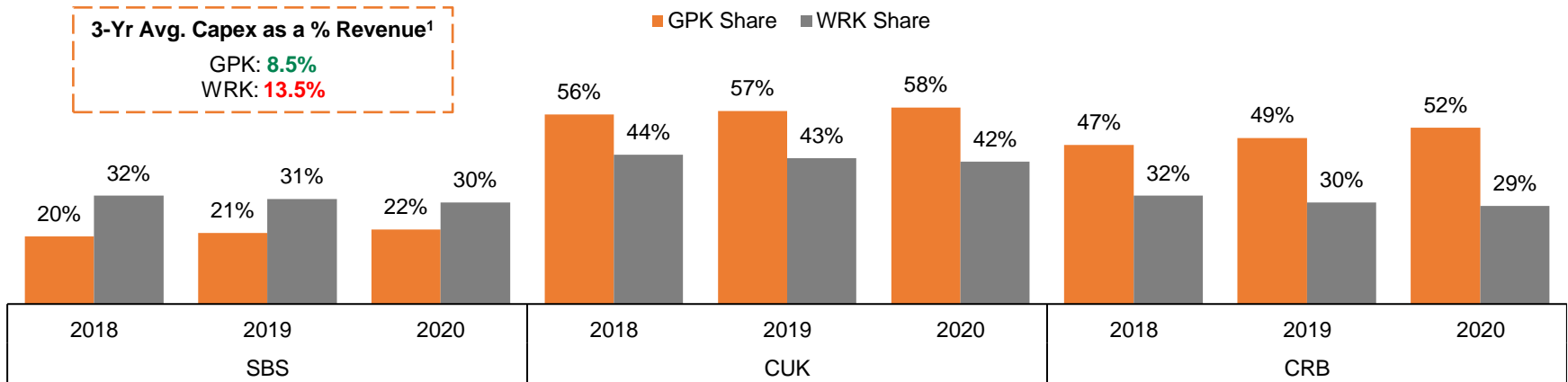


- GPK's acquisition revolves around the idea of further downstream integration and greater capacity to meet increasing demand
- Letica Corp provides needed capacity for incremental demand for paper cups due to the ongoing environmental-driven shift
- In this industry the asset base of a company is crucial for two key reasons: controlling supply chain to change prices and having capacity to maintain and gain more customers
- Given the importance of assets, only those with extensive available capital can be competitive

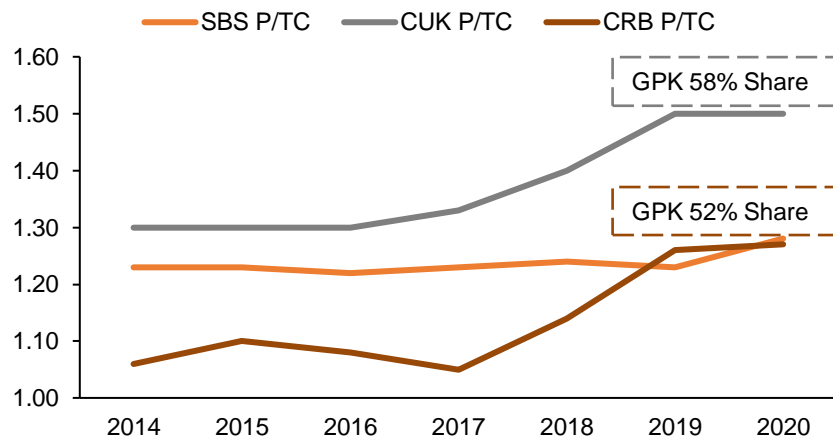


# GPK vs WRK: A Two Horse Race, So Why GPK?

## Superior and Highly Efficient Operations Helping Capture More Market Share Over Time



### Focus On Higher Margin Products

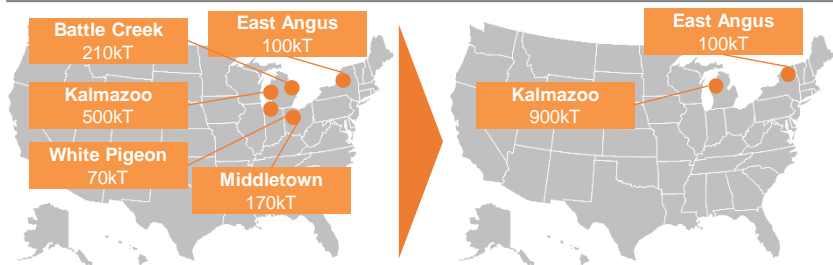


### Pureplay Taking Advantage of Tailwinds

- As a pureplay paperboards company, GPK is in position to take advantage of economies of scale and has a management team solely focused on the paperboard markets
- All capital investments will be towards a growing industry with strong ROI opportunities
- Efficiency is the name of the game: end products are indistinguishable to a large extent, so the winning firm is that one that best uses economies of scale to grow volumes while maintaining/increasing their margins

# Market Misvaluation of Paper Mill Consolidation Synergies

## CRB Mill Consolidation Plan



**\$600 million CapEx project** over 2020 and 2021 to consolidate Middletown, White Pigeon, and Battle Creek CRB paper mills into a state-of-the-art Kalamazoo papermill by 2022 with expected output of 900 kilotons of CRB paper

## Current Market Sentiment on Mill Consolidation Plan

The equity markets have historically been extremely short-term in terms of valuation methods. Equity research has been valuing GPK by applying 2021/2022 EV/EBITDA multiples, before the benefits of the Mill Consolidation plan will solidify

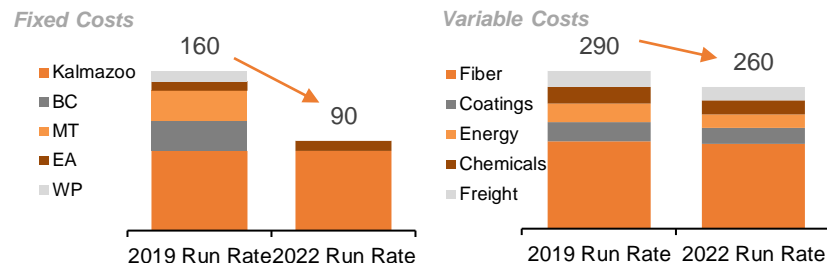
From UBS Equity Research (**September 2019**): "Our PT of \$14 represents ~7.5x NTM EV/EBITDA and ~15.0x EPS"

"We believe greater confidence for GPK to more effectively translate prices to the bottom line and sustain the 1-2% targeted volume growth will be the key drivers of higher valuation multiples. Pivoting to sustained organic volume growth of 1-2% based on sustainability trends could ultimately result in an uplift in valuation multiples. **However, given that GPK missed its initial EBITDA guidance from 2016-2018, we take a wait and see attitude before we gain more confidence in management executing and delivering**"

**Track record of management meeting expectations is mixed, but has shown significant improvement in past 8 quarters**

## Clear Path to Cost Reductions

- Decreased maintenance CapEx and fixed costs (300 reduced headcount and 3 less papermills)
- World-class paperboard technology
- Simplified operations, one large mill reduces financial impact of ongoing maintenance downtime
- Ability to create CRB paper at higher scale, resulting in reduced material costs



	Q3 16	Q4 16	Q1 17	Q2 17	Q3 17	Q4 17	Q1 18	Q2 18
Revenue Surprise	(2.87%)	0.79%	2.25%	0.31%	1.76%	(0.20%)	0.56%	(3.34%)
EBITDA Surprise	(2.97%)	(1.70%)	2.09%	(0.11%)	(0.97%)	(0.67%)	0.22%	(3.09%)

	Q3 18	Q4 18	Q1 19	Q2 19	Q3 19	Q4 19	Q1 20	Q2 20
Revenue Surprise	(2.89%)	(0.47%)	(2.32%)	(0.19%)	0.77%	(1.59%)	2.89%	1.80%
EBITDA Surprise	(5.11%)	1.10%	8.43%	4.97%	(0.16%)	(1.00%)	9.18%	8.52%

Source(s): Capital IQ, UBS Equity Research, Company Filings

# Market Misvaluation of Paper Mill Consolidation Synergies

## Multiple Scenarios with Conservative Assumptions Display Significant Margin of Safety

The Special Situations team has conviction that current market valuations are not pricing in potential cost synergies because:

1. Currently, 2021E and 2022E EBITDA margins are expected to be 16.79% and 16.77%, **demonstrating that margins are not projected to expand significantly in 2022 when the Paper Mill Consolidation strategy will come into action** despite 2 quarters of increased CapEx spending (on schedule) as indicated in quarterly earnings
2. Equity research is valuing the business off 2021E Forward EV/EBITDA multiples, and the short-term focus of equity market investors may be looking at present earnings, rather than future. The Special Situations team has projected the business past 2 years to see the **long term implications of different scenarios of the Paper Mill consolidation strategy** and has identified significant upside relative to current valuations
3. The market has indicated distrust of management team guidance, despite a better track record of hitting targets for the past 8 quarters (5/8 EBITDA consensus beats). The market does not believe that GPK can achieve 1-2% of organic growth per year and expand EBITDA margins to 17-18%

<b>Base Case</b>	Forecast Period									
	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>Revenue</b>	<b>6279.9</b>	<b>6398.6</b>	<b>6516.1</b>	<b>6632.4</b>	<b>6747.1</b>	<b>6860.3</b>	<b>6971.6</b>	<b>7081.0</b>	<b>7188.4</b>	<b>7293.5</b>
<i>Revenue Growth</i>	1.9%	1.9%	1.8%	1.8%	1.7%	1.7%	1.6%	1.6%	1.5%	1.5%
<b>EBITDA</b>	<b>980.1</b>	<b>1003.6</b>	<b>1102.0</b>	<b>1125.5</b>	<b>1148.8</b>	<b>1172.1</b>	<b>1195.3</b>	<b>1218.3</b>	<b>1241.2</b>	<b>1263.8</b>
<i>EBITDA Margin</i>	15.6%	15.7%	16.9%	17.0%	17.0%	17.1%	17.1%	17.2%	17.3%	17.3%
<b>CapEx</b>	<b>625.0</b>	<b>625.0</b>	<b>391.0</b>	<b>397.9</b>	<b>404.8</b>	<b>411.6</b>	<b>418.3</b>	<b>424.9</b>	<b>431.3</b>	<b>437.6</b>

**WACC: 5.0%**  
**Exit Multiple: 7.0x**

**Base Case Results**  
Revenue Growth: 2% > 1.5%  
Expected Cost Synergies: \$75M  
Implied Price: \$20.13 (+46.3%)

<b>Bull Case</b>	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>Revenue</b>	<b>6310.7</b>	<b>6461.5</b>	<b>6612.5</b>	<b>6763.5</b>	<b>6914.4</b>	<b>7064.9</b>	<b>7214.9</b>	<b>7364.2</b>	<b>7512.7</b>	<b>7660.1</b>
<i>Revenue Growth</i>	2.4%	2.4%	2.3%	2.3%	2.2%	2.2%	2.1%	2.1%	2.0%	2.0%
<b>EBITDA</b>	<b>984.9</b>	<b>1013.5</b>	<b>1142.2</b>	<b>1171.2</b>	<b>1200.4</b>	<b>1229.8</b>	<b>1259.4</b>	<b>1289.0</b>	<b>1318.8</b>	<b>1348.6</b>
<i>EBITDA Margin</i>	15.6%	15.7%	17.3%	17.3%	17.4%	17.4%	17.5%	17.5%	17.6%	17.6%
<b>CapEx</b>	<b>625.0</b>	<b>625.0</b>	<b>391.0</b>	<b>397.9</b>	<b>404.8</b>	<b>411.6</b>	<b>418.3</b>	<b>424.9</b>	<b>431.3</b>	<b>437.6</b>

**Bull Case Results**  
Revenue Growth: 2.5% > 2.0%  
Expected Cost Synergies: \$100M  
Implied Price: \$22.21 (+61.4%)

<b>Bear Case</b>	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>Revenue</b>	<b>6263.3</b>	<b>6363.0</b>	<b>6458.9</b>	<b>6550.8</b>	<b>6638.3</b>	<b>6721.3</b>	<b>6799.6</b>	<b>6872.9</b>	<b>6941.1</b>	<b>7003.9</b>
<i>Revenue Growth</i>	1.7%	1.6%	1.5%	1.4%	1.3%	1.3%	1.2%	1.1%	1.0%	0.9%
<b>EBITDA</b>	<b>977.5</b>	<b>998.0</b>	<b>1068.0</b>	<b>1087.5</b>	<b>1106.5</b>	<b>1124.9</b>	<b>1142.6</b>	<b>1159.7</b>	<b>1176.1</b>	<b>1191.6</b>
<i>EBITDA Margin</i>	15.6%	15.7%	16.5%	16.6%	16.7%	16.7%	16.8%	16.9%	16.9%	17.0%
<b>CapEx</b>	<b>625.0</b>	<b>625.0</b>	<b>391.0</b>	<b>397.9</b>	<b>404.8</b>	<b>411.6</b>	<b>418.3</b>	<b>424.9</b>	<b>431.3</b>	<b>437.6</b>

**Bear Case Results**  
Revenue Growth: 1.7% > 1.0%  
Expected Cost Synergies: \$50M  
Implied Price: \$18.33 (+33.2%)

# Agenda

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**1** Company Overview

**2** Industry Outlook

**3** Investment Thesis

**4** Valuation

**5** Catalysts and Risks

**6** Recommendation

# Comparables Analysis

## Comparable Companies: Peer Universe<sup>1</sup>

(\$US mm)			P/E			EV/EBITDA			Revenue Growth		EBITDA Margin	
	Equity Value	Enterprise Value	2019A	2020E	2021E	2019A	2020E	2021E	2020E	2021E	2020E	2021E
<b>Paperboard Packaging</b>												
WestRock Company	\$9,749	\$18,947	20.5x	(30.2x)	11.6x	6.5x	6.8x	6.4x	(2.8%)	1.3%	15.9%	16.7%
Packaging Corporation of America	\$10,780	\$12,465	15.6x	19.6x	17.1x	8.6x	10.2x	9.3x	(4.7%)	4.7%	18.4%	19.3%
International Paper Company	\$17,198	\$20,804	14.3x	15.7x	12.8x	5.6x	6.6x	6.3x	(8.0%)	3.7%	15.4%	15.6%
Sealed Air Corporation	\$6,143	\$9,644	20.9x	12.8x	12.4x	11.4x	9.3x	9.1x	1.3%	3.4%	21.4%	21.2%
Avery Dennison Corporation	\$11,544	\$13,386	38.5x	20.5x	19.3x	13.7x	13.0x	12.4x	(3.4%)	4.1%	15.1%	15.2%
Sonoco Products Company	\$4,909	\$6,592	17.0x	14.6x	14.1x	8.8x	8.6x	8.4x	(3.7%)	(2.0%)	14.9%	15.4%
Arcor plc	\$16,237	\$20,349	39.5x	27.3x	20.6x	18.4x	15.0x	14.0x	14.5%	1.5%	15.3%	16.2%
Median			20.5x	15.7x	14.1x	8.8x	9.3x	9.1x	(3.4%)	3.4%	15.4%	16.2%
<b>Other Packaging</b>												
Berry Global Group, Inc.	\$6,183	\$16,997	13.8x	10.1x	9.0x	10.5x	8.0x	7.8x	22.5%	2.9%	18.0%	18.1%
Ball Corporation	\$29,113	\$36,402	53.6x	32.1x	27.9x	19.6x	19.1x	17.5x	(0.1%)	6.8%	16.6%	17.0%
O-I Glass, Inc.	\$1,482	\$6,349	(3.7x)	8.1x	5.7x	6.0x	6.4x	6.0x	(9.3%)	0.9%	16.4%	17.3%
AptarGroup, Inc.	\$7,384	\$8,414	31.2x	32.5x	27.9x	14.2x	14.4x	13.0x	1.3%	6.0%	20.2%	21.1%
Crown Holdings, Inc.	\$11,379	\$19,634	22.7x	15.1x	13.6x	11.8x	11.4x	10.6x	(1.6%)	5.7%	15.0%	15.3%
Silgan Holdings Inc.	\$3,810	\$7,064	19.8x	11.6x	11.2x	11.3x	9.4x	8.9x	8.7%	3.7%	15.4%	15.6%
Ardagh Group S.A.	\$3,895	\$9,413	(13.7x)	12.1x	10.3x	8.1x	8.1x	7.7x	(0.4%)	3.8%	17.6%	17.7%
Median			19.8x	12.1x	11.2x	11.3x	9.4x	8.9x	(0.1%)	3.8%	16.6%	17.3%
Overall Median			20.2x	13.9x	12.7x	10.1x	9.3x	9.0x	(1.7%)	3.6%	16.0%	16.7%
Graphic Packaging Holding Company	\$3,821	\$7,865	19.7x	13.0x	12.2x	8.0x	7.4x	7.2x	5.5%	2.1%	16.5%	16.5%

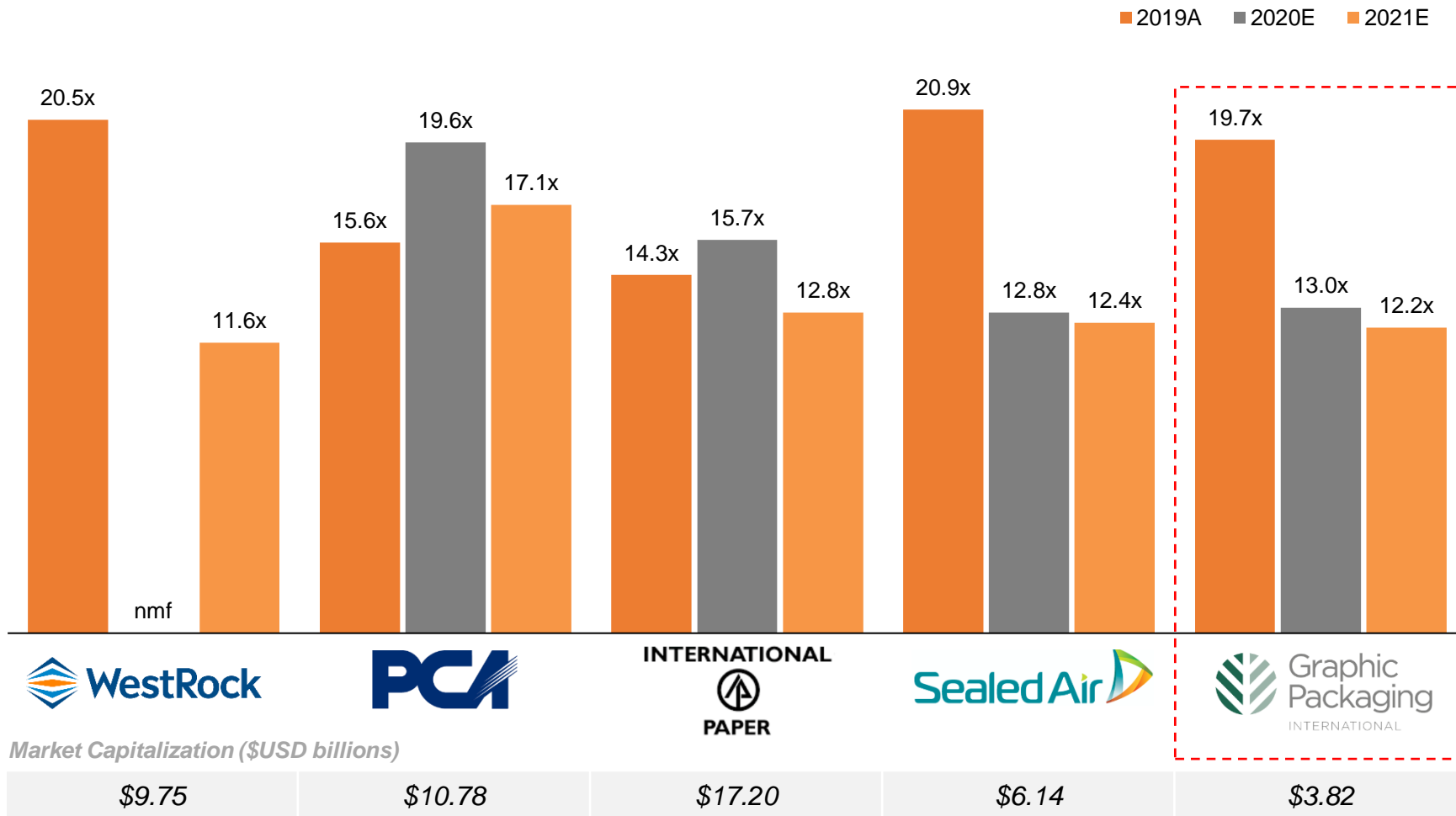
## Comparable Companies: Analysis Commentary

- GPK trades at a discount relative to both Paperboard Packaging and Other Packaging peers on a P/E and EV/EBITDA basis
- GPK operates with an additional 100 bps EBITDA margin relative to paperboard peers and is relatively in line with other packaging peers
- Historically, GPK's ROIC has hovered around the 7-8% mark, in line with paperboard peers
- The firm trails on LFCF Yield due to significant CapEx spending its new plant in Kalamazoo, Michigan

# Comparables Analysis

## Price / Earnings Multiples for Comparable Universe

Paperboard Packaging 2020E Median: 15.7x

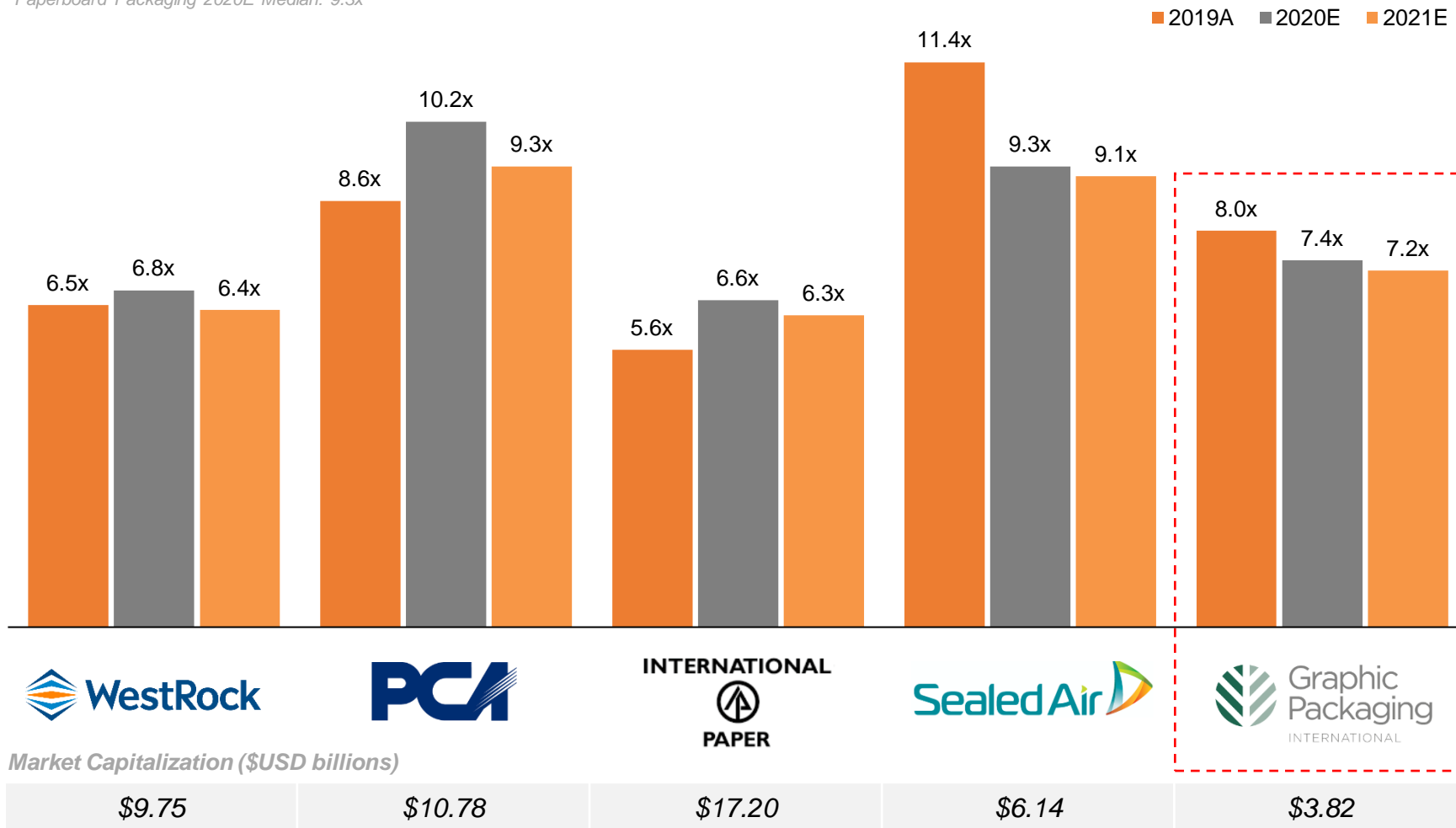




# Comparables Analysis

## Enterprise Value / EBITDA Multiples for Comparable Universe

Paperboard Packaging 2020E Median: 9.3x



# Comparables Analysis

## Comparables Output Table: GPK Trades at Relative Discount to Both Peer Sets

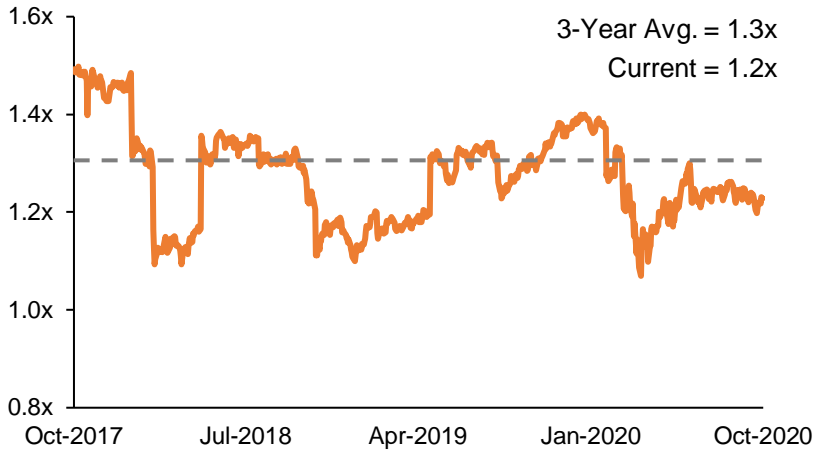
Metric	Multiple			Implied Share Price			Implied Return		
	Lower Limit	Median	Upper Limit	Lower Limit	Median	Upper Limit	Lower Limit	Median	Upper Limit
P / 2019A EPS	11.9x	20.2x	28.4x	\$8.36	\$14.11	\$19.86	(37.1%)	6.2%	49.4%
P / 2020E EPS	6.6x	13.9x	21.1x	\$7.26	\$15.23	\$23.19	(45.4%)	14.6%	74.5%
P / 2021E EPS	9.5x	12.7x	15.9x	\$11.22	\$15.01	\$18.79	(15.6%)	12.9%	41.4%
EV / 2019A EBITDA	8.0x	10.1x	12.1x	\$13.85	\$21.35	\$28.85	4.2%	60.7%	117.1%
EV / 2020E EBITDA	7.5x	9.3x	11.1x	\$14.88	\$21.99	\$29.10	11.9%	65.4%	119.0%
EV / 2021E EBITDA	7.4x	9.0x	10.6x	\$14.93	\$21.46	\$28.00	12.4%	61.5%	110.7%

## Conclusion

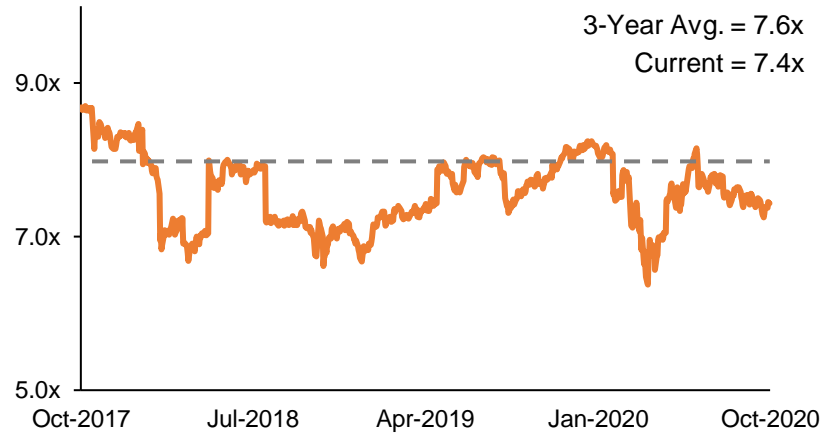
- The peer group is fairly representative of the business dynamics under which GPK operates
  - Paperboard peers operate within similar supply/demand markets and thus experience similar operating conditions and economic cycles in terms of margin compression/expansion due to raw material input prices
- Non-paperboard packaging does not rely on the same raw material inputs and thus have different business economics, but are still dependent on the same end markets to drive demand for their products
- The Special Situations Team believes that due to GPK's vertical integration, market share dominance, and superior operating profile, the firm is undervalued relative to peers and the discount with which it trades in is unjustified
- Comparables analysis ultimately receives **20% weighting** in the overall valuation

# Historical Trading Multiples Analysis

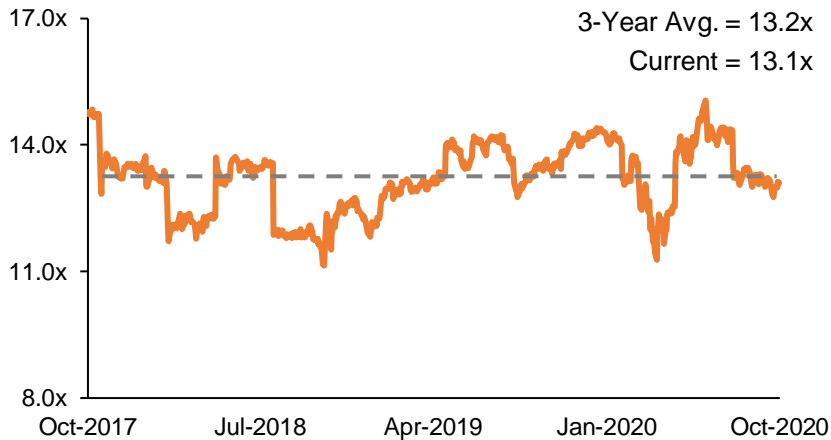
**EV/NTM Revenue**



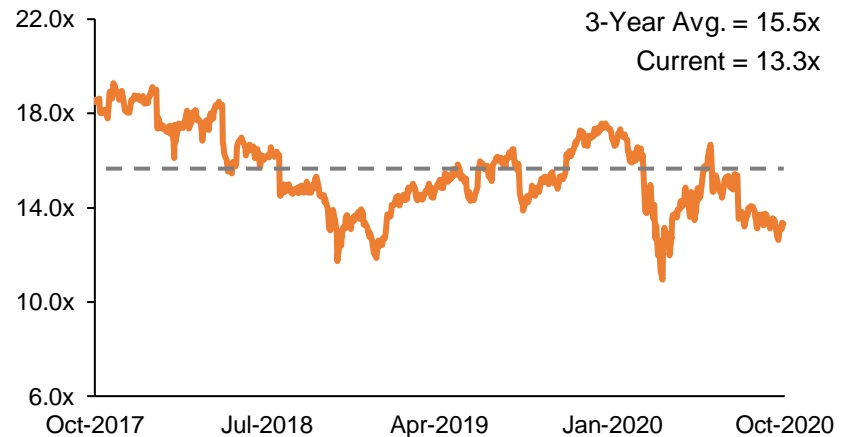
**EV/NTM EBITDA**



**EV/NTM EBIT**



**P/NTM EPS**



# Discounted Cash Flows

## DCF Valuation Assumptions

- Revenue growth is conservative growth from their end markets
- EBITDA margins expected to expand due to cost synergies from additional \$625 million of CapEx deployed over 2020 and 2021
- Maintenance CapEx at 5% as per management guidance with 1% of growth CapEx to support revenue growth
- Change in NWC and D&A is based off historical trends

WACC: **5.0%**Exit Multiple: **7.0x**FDSO: **278 million**Statutory Tax Rate: **25.0%**

## DCF Unlevered Cash Flow Summary

(USD millions)	Forecast Period												
	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>Revenue</b>	<b>4,406</b>	<b>6,029</b>	<b>6,160</b>	<b>6,280</b>	<b>6,399</b>	<b>6,516</b>	<b>6,632</b>	<b>6,747</b>	<b>6,860</b>	<b>6,972</b>	<b>7,081</b>	<b>7,188</b>	<b>7,294</b>
% Growth	-	36.9%	2.2%	1.9%	1.9%	1.8%	1.8%	1.7%	1.7%	1.6%	1.6%	1.5%	1.5%
<b>Adjusted EBITDA</b>	<b>663</b>	<b>893</b>	<b>986</b>	<b>980</b>	<b>1,004</b>	<b>1,102</b>	<b>1,125</b>	<b>1,149</b>	<b>1,172</b>	<b>1,195</b>	<b>1,218</b>	<b>1,241</b>	<b>1,264</b>
% Margin	15.1%	14.8%	16.0%	15.6%	15.7%	16.9%	17.0%	17.0%	17.1%	17.1%	17.2%	17.3%	17.3%
(-) Depreciation & Amortization	(335)	(435)	(452)	(460)	(460)	(480)	(476)	(472)	(467)	(462)	(456)	(449)	(429)
% of CapEx	139.2%	114.8%	136.6%	73.6%	73.6%	122.7%	119.6%	116.5%	113.5%	110.4%	107.3%	104.2%	98.0%
<b>Adjusted EBIT</b>	<b>328</b>	<b>458</b>	<b>534</b>	<b>520</b>	<b>544</b>	<b>622</b>	<b>649</b>	<b>677</b>	<b>705</b>	<b>734</b>	<b>763</b>	<b>792</b>	<b>835</b>
% Margin	7.4%	7.6%	8.7%	8.3%	8.5%	9.5%	9.8%	10.0%	10.3%	10.5%	10.8%	11.0%	11.4%
% Growth		39.7%	16.6%	(2.6%)	4.5%	14.5%	4.4%	4.3%	4.1%	4.0%	3.9%	3.8%	5.4%
(-) Cash Taxes	46	(55)	(76)	(130)	(136)	(156)	(162)	(169)	(176)	(183)	(191)	(198)	(209)
Tax rate (%)	(13.9%)	11.9%	14.3%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%	25.0%
<b>NOPAT</b>	<b>373</b>	<b>404</b>	<b>458</b>	<b>390</b>	<b>408</b>	<b>467</b>	<b>487</b>	<b>508</b>	<b>529</b>	<b>550</b>	<b>572</b>	<b>594</b>	<b>626</b>
(+) Depreciation & Amortization	335	435	452	460	460	480	476	472	467	462	456	449	429
(-) CapEx	(241)	(379)	(331)	(625)	(625)	(391)	(398)	(405)	(412)	(418)	(425)	(431)	(438)
% of Revenue	5.5%	6.3%	5.4%	10.0%	9.8%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
(-) Change in Net Working Capital		(302)	(4)	(14)	(14)	(14)	(14)	(14)	(14)	(13)	(13)	(13)	(13)
% of Change in Revenue	14.6%	18.6%	2.8%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%	12.0%
<b>Unlevered Free Cash Flows</b>	<b>468</b>	<b>158</b>	<b>575</b>	<b>211</b>	<b>228</b>	<b>541</b>	<b>551</b>	<b>561</b>	<b>571</b>	<b>580</b>	<b>590</b>	<b>599</b>	<b>605</b>

Source(s): Capital IQ, Company filings

# Discounted Cash Flows

## Valuation Summary

<b>Cumulative PV of Free Cash Flow</b>	<b>3,844</b>
<i>% of Enterprise Value</i>	39.9%
<b>Terminal Value</b>	
Terminal Year EBITDA	1,264
Terminal Year UFCF	605
Exit Multiple	7.0x
<b>Terminal Value</b>	<b>8,847</b>
Implied EV / UFCF Multiple	14.6x
<b>PV of Terminal Value</b>	<b>5,788</b>
<i>% of Enterprise Value</i>	60.1%
<b>Enterprise Value</b>	<b>9,632</b>
(-) Long-Term Debt	(3,197)
(-) Short-Term Debt	(496)
(-) Minority Interest	(406)
(+) Cash & Equivalents	56
<b>Equity Value</b>	<b>5,589</b>
Basic Shares	277.0
(+) Diluted Securities	0.7
<b>Fully Diluted Shares Outstanding</b>	<b>278</b>
<b>Implied Share Price</b>	<b>\$20.13</b>
Current Share Price	\$13.76
<b>Premium to Current Share Price</b>	<b>46.3%</b>

## Discount Rate Analysis

WACC	
10-Year US Treasury	0.7%
Market Risk Premium	5.0%
Beta	1.28
<b>Cost of Equity</b>	<b>7.1%</b>
Cost of Debt	3.1%
Tax Rate	25.0%
<b>After-Tax Cost of Debt</b>	<b>2.4%</b>
Target Debt/Capitalization	44.9%
<b>WACC</b>	<b>5.0%</b>

Debt Tranches		
(USD millions)	Face Value	Effective Interest Rate
Senior Notes (3.50%)	350	3.55%
Senior Notes (3.50%)	450	3.55%
Senior Notes (4.75%)	300.0	4.82%
Senior Notes (4.125%)	300.0	4.17%
Senior Notes (4.875%)	250.0	4.91%
Senior Notes (4.75%)	425.0	4.76%
Senior Secured Term Loan	1,368.8	1.62%
Senior Secured Revolving Credit Facility	113.2	1.52%
Finance Leases	140.7	
Other	5.1	
<b>Weighted Average</b>		<b>3.14%</b>

## Valuation Takeaways

- The DCF analysis yields an implied price of \$20.13 (+46.3%) and GPK is currently trading at \$13.76
- The base case uses a 5.0% WACC with a 7.0x exit EV/EBITDA multiple (perpetuity growth method resulted in unrealistic exit assumptions)

# Discounted Cash Flows

## Sensitivity Analysis

		Equity Value Per Share				
		Terminal Multiple				
		6.0x	6.5x	7.0x	7.5x	8.0x
Discount rate	3.0%	\$21.77	\$23.53	\$25.29	\$27.05	\$28.81
	4.0%	\$19.36	\$20.98	\$22.60	\$24.22	\$25.83
	5.0%	\$17.15	\$18.64	\$20.13	\$21.62	\$23.10
	6.0%	\$15.12	\$16.49	\$17.86	\$19.23	\$20.60
	7.0%	\$13.25	\$14.52	\$15.78	\$17.04	\$18.30

		Implied Return				
		Terminal Multiple				
		6.0x	6.5x	7.0x	7.5x	8.0x
Discount rate	3.0%	58.2%	71.0%	83.8%	96.6%	109.4%
	4.0%	40.7%	52.5%	64.2%	76.0%	87.7%
	5.0%	24.6%	35.4%	46.3%	57.1%	67.9%
	6.0%	9.9%	19.8%	29.8%	39.8%	49.7%
	7.0%	(3.7%)	5.5%	14.7%	23.8%	33.0%

		Equity Value Per Share				
		Revenue Growth Sensitivity				
		(1.0%)	(0.5%)	0.0%	0.5%	1.0%
Margin Sensitivity	(2.0%)	\$15.72	\$16.93	\$18.19	\$19.50	\$20.87
	(1.0%)	\$16.65	\$17.88	\$19.16	\$20.49	\$21.88
	0.0%	\$17.57	\$18.82	\$20.13	\$21.48	\$22.89
	1.0%	\$18.50	\$19.77	\$21.09	\$22.47	\$23.90
	2.0%	\$19.43	\$20.72	\$22.06	\$23.46	\$24.91

		Implied Return				
		Revenue Growth Sensitivity				
		(1.0%)	(0.5%)	0.0%	0.5%	1.0%
Margin Sensitivity	(2.0%)	14.2%	23.0%	32.2%	41.7%	51.7%
	(1.0%)	21.0%	29.9%	39.2%	48.9%	59.0%
	0.0%	27.7%	36.8%	46.3%	56.1%	66.3%
	1.0%	34.5%	43.7%	53.3%	63.3%	73.7%
	2.0%	41.2%	50.6%	60.3%	70.5%	81.0%

# Agenda

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# Short-Term Tailwinds With Limited Downside

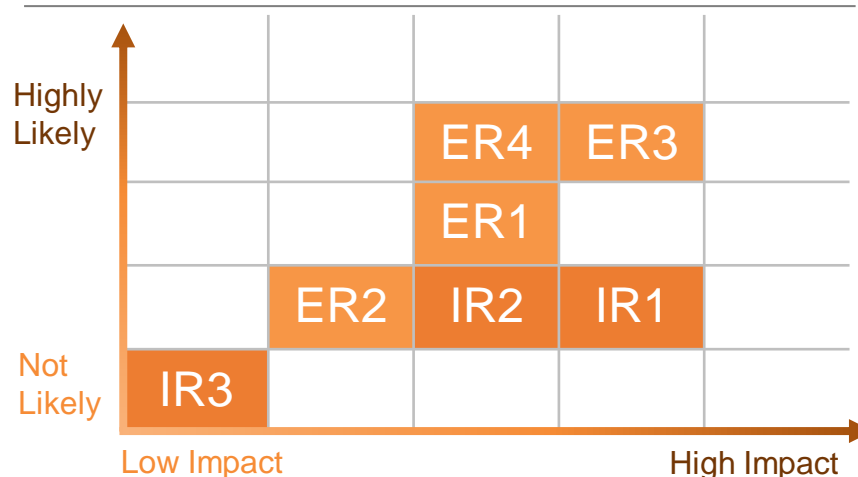
## Near-Term Catalysts

- **Q3 2020 Earnings Report** – GPK can realize massive value through confirmation of investment theses; if they are growing at ~2-3% and if their Paper Mill consolidation project is starting to generate cost synergies
- **Management Projections Accuracy** – If EBITDA projections by management team are correct, then market will look at future projections with higher conviction

## Long-Term Catalysts

- **Improving Consumer and Company Values on Green Packaging** – As consumers and corporations push to phase out plastic and other packaging, there will be a shift to environmentally friendly paper packaging
- **Continued demonstration of pricing power** – Pricing power will drive organic growth which will result in higher margins and revenue growth

## Risks



### External Risks

- Plastic industry innovation in recycling (ER1)
- New competitors entering or expanding in the market (ER2)
- Significant decline in demand due to recession (ER3)
- Pulp and Paper Commodity Risk (ER4)

### Internal Risks

- Cost synergies from mill consolidation delayed (IR1)
- Management projections not meeting street expectations (IR2)
- Inability to innovate and create products to capture plastic market (IR3)



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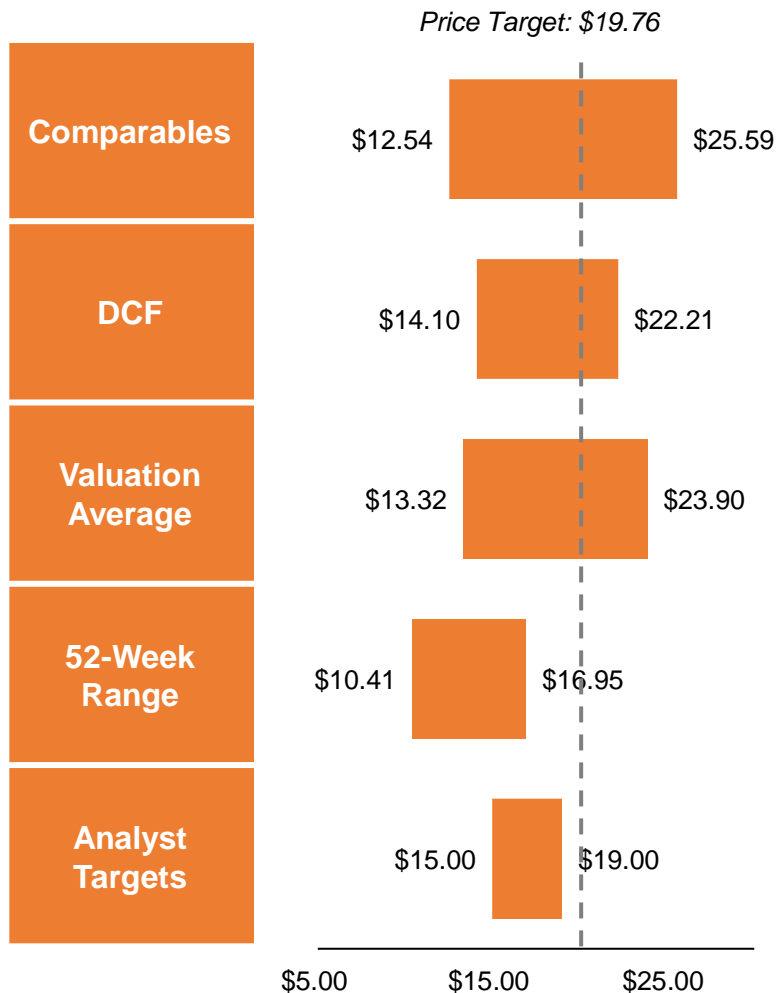
**5** Catalysts and Risks

**6** Recommendation

RECOMMENDATION

# Buy With a Price Target of ~\$19.76 (+44%)

## Indicative Valuation Range

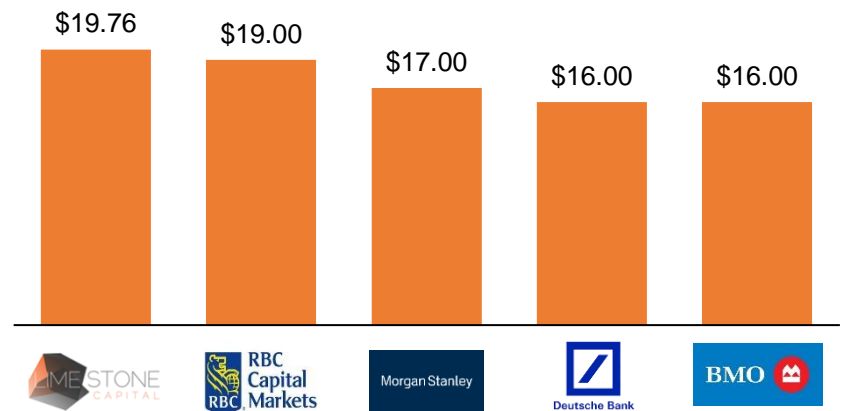


## Price Target

Valuation Summary		
Analysis	Price	Weight
Comparables	\$18.29	20%
Discounted CF	\$20.13	80%
<b>Average</b>	<b>\$19.76</b>	<b>100%</b>



## Selected Broker Summary



# Appendix

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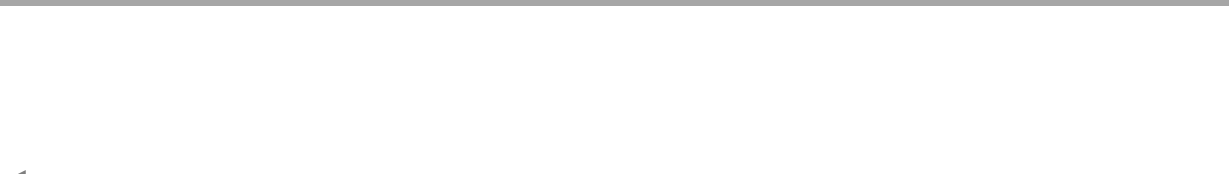


# APPENDIX A

## WACC Analysis

(In USD millions)	Equity Value	Total Debt	Levered Beta		D/E	Tax Rate	Unlevered Beta	
			Raw	Adjusted			Raw	Adjusted
<b>Paperboard Packaging</b>								
WestRock Company	\$9,092	\$19,577	1.266	1.177	1.183	24%	0.667	0.778
Packaging Corporation of America	\$10,209	\$12,002	0.784	0.856	0.268	24%	0.652	0.768
International Paper Company	\$15,912	\$24,961	1.040	1.027	0.622	24%	0.707	0.804
Sealed Air Corporation	\$6,282	\$9,872	1.016	1.010	0.618	28%	0.703	0.802
Avery Dennison Corporation	\$10,377	\$12,352	1.225	1.150	0.219	28%	1.059	1.039
Sonoco Products Company	\$5,207	\$6,928	0.877	0.918	0.493	28%	0.647	0.765
Amcor plc	\$16,913	\$21,285	0.651	0.768	0.287	28%	0.540	0.693
<b>Median</b>					<b>0.493</b>		<b>0.667</b>	<b>0.778</b>
<b>Other Packaging</b>								
Berry Global Group, Inc.	\$6,626	\$17,440	1.028	1.018	1.769	28%	0.452	0.635
Ball Corporation	\$26,997	\$34,344	1.021	1.014	0.293	28%	0.843	0.895
O-I Glass, Inc.	\$1,778	\$7,309	2.062	1.708	3.659	28%	0.567	0.712
AptarGroup, Inc.	\$7,276	\$8,380	0.668	0.779	0.186	28%	0.589	0.726
Crown Holdings, Inc.	\$10,172	\$18,626	1.407	1.271	0.827	28%	0.882	0.921
Silgan Holdings Inc.	\$4,104	\$7,411	0.683	0.789	0.852	28%	0.423	0.616
Ardagh Group S.A.	\$3,321	\$9,047	1.506	1.338	2.160	28%	0.590	0.726
<b>Median</b>					<b>0.852</b>		<b>0.589</b>	<b>0.726</b>
<b>Overall Median</b>					<b>0.620</b>		<b>0.650</b>	<b>0.766</b>

Unlevered Adjusted Avg. Bet	0.766
Target Gearing	0.898
Tax Rate	24.0%
<b>Relevered Beta</b>	<b>1.289</b>
<i>Actual Adjusted Beta</i>	<i>1.090</i>



# Revenue Model

## Revenue by Business Segment

	Forecast Period													
	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>Revenue by Business Segment</b>														
<b>Paperboard Mills</b>														
<b>Total Revenue</b>														
Current Case	Base Case													
Base Case	394.7	399.7	1078.1	1094.8	1111.2	1127.3	1142.9	1158.2	1173.0	1187.3	1201.2	1214.5	1227.3	1239.6
Bull Case	394.7	399.7	1078.1	1094.8	1116.7	1138.4	1159.9	1181.2	1202.2	1222.9	1243.3	1263.3	1282.9	1302.2
Stress Case	394.7	399.7	1078.1	1094.8	1105.7	1116.2	1126.1	1135.5	1144.3	1152.6	1160.3	1167.4	1173.9	1179.7
<b>Total Growth Rate</b>														
Current Case	Base Case													
Base Case	1.3%	169.7%	1.5%	1.5%	1.4%	1.4%	1.3%	1.3%	1.2%	1.2%	1.1%	1.1%	1.1%	1.0%
Bull Case	1.3%	169.7%	1.5%	2.0%	1.9%	1.9%	1.8%	1.8%	1.7%	1.7%	1.6%	1.6%	1.5%	
Stress Case	1.3%	169.7%	1.5%	1.0%	0.9%	0.9%	0.8%	0.8%	0.7%	0.7%	0.6%	0.6%	0.5%	
<b>Americas Paperboard Packaging</b>														
<b>Total Revenue</b>														
Current Case	Base Case													
Base Case	3193.1	3245.1	4098.3	4233.7	4318.4	4402.3	4485.5	4567.7	4648.9	4729.0	4807.8	4885.3	4961.3	5035.7
Bull Case	3193.1	3245.1	4098.3	4233.7	4339.5	4445.6	4551.8	4658.0	4764.1	4870.0	4975.5	5080.6	5185.0	5288.7
Stress Case	3193.1	3245.1	4098.3	4233.7	4318.4	4399.9	4478.2	4552.8	4623.6	4690.4	4752.9	4811.0	4864.5	4913.1
<b>Total Growth Rate</b>														
Current Case	Base Case													
Base Case	1.6%	26.3%	3.3%	2.0%	1.9%	1.9%	1.8%	1.8%	1.7%	1.7%	1.6%	1.6%	1.5%	
Bull Case	1.6%	26.3%	3.3%	2.5%	2.4%	2.4%	2.3%	2.3%	2.2%	2.2%	2.1%	2.1%	2.0%	
Stress Case	1.6%	26.3%	3.3%	2.0%	1.9%	1.8%	1.7%	1.6%	1.4%	1.3%	1.2%	1.1%	1.0%	
<b>Europe Paperboard Packaging</b>														
<b>Total Revenue</b>														
Current Case	Base Case													
Base Case	569.9	593.5	695.9	689.3	706.5	723.8	741.1	758.4	775.7	792.9	810.1	827.2	844.2	861.1
Bull Case	569.9	593.5	695.9	689.3	710.0	730.9	752.0	773.3	794.8	816.4	838.2	860.1	882.1	904.1
Stress Case	569.9	593.5	695.9	689.3	696.2	703.2	710.2	717.3	724.5	731.7	739.0	746.4	753.9	761.4
<b>Total Growth Rate</b>														
Current Case	Base Case													
Base Case	4.1%	17.3%	(0.9%)	2.5%	2.4%	2.4%	2.3%	2.3%	2.2%	2.2%	2.1%	2.1%	2.0%	
Bull Case	4.1%	17.3%	(0.9%)	3.0%	2.9%	2.9%	2.8%	2.8%	2.7%	2.7%	2.6%	2.6%	2.5%	
Stress Case	4.1%	17.3%	(0.9%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	

Source(s): Capital IQ



# Revenue Model

## Revenue by Segment Cont'd

### Corporate/Other/Eliminations

Total Revenue														
Current Case	Base Case													
Base Case	140.4	167.3	157.1	142.3	143.7	145.2	146.6	148.1	149.6	151.1	152.6	154.1	155.6	157.2
Bull Case	140.4	167.3	157.1	142.3	144.4	146.6	148.8	151.0	153.3	155.6	157.9	160.3	162.7	165.1
Stress Case	140.4	167.3	157.1	142.3	143.0	143.7	144.4	145.2	145.9	146.6	147.4	148.1	148.8	149.6

### Total Growth Rate

Current Case														
Current Case	Base Case													
Base Case					1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Bull Case		19.2%	(6.1%)	(9.4%)	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%	1.0%
Stress Case		19.2%	(6.1%)	(9.4%)	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%

### Aggregate Data

#### Growth Rate

Current Case														
Current Case	Base Case													
Base Case		2.5%	36.9%	2.2%	1.9%	1.9%	1.8%	1.8%	1.7%	1.7%	1.6%	1.6%	1.5%	1.5%
Bull Case		2.5%	36.9%	2.2%	2.4%	2.4%	2.3%	2.3%	2.2%	2.2%	2.1%	2.1%	2.0%	2.0%
Stress Case		2.5%	36.9%	2.2%	1.7%	1.6%	1.5%	1.4%	1.3%	1.3%	1.2%	1.1%	1.0%	0.9%

#### Total Revenues

Current Case														
Current Case	Base Case													
Base Case	\$4298.1	\$4405.6	\$6029.4	\$6160.1	\$6279.9	\$6398.6	\$6516.1	\$6632.4	\$6747.1	\$6860.3	\$6971.6	\$7081.0	\$7188.4	\$7293.5
Bull Case	\$4298.1	\$4405.6	\$6029.4	\$6160.1	\$6310.7	\$6461.5	\$6612.5	\$6763.5	\$6914.4	\$7064.9	\$7214.9	\$7364.2	\$7512.7	\$7660.1
Stress Case	\$4298.1	\$4405.6	\$6029.4	\$6160.1	\$6263.3	\$6363.0	\$6458.9	\$6550.8	\$6638.3	\$6721.3	\$6799.6	\$6872.9	\$6941.1	\$7003.9

### Revenue Contribution Analysis

#### Base Case

Paperboard Mills	9.2%	9.1%	17.9%	17.8%	17.7%	17.6%	17.5%	17.5%	17.4%	17.3%	17.2%	17.2%	17.1%	17.0%
Americas Paperboard Packaging	74.3%	73.7%	68.0%	68.7%	68.8%	68.8%	68.8%	68.9%	68.9%	68.9%	69.0%	69.0%	69.0%	69.0%
Europe Paperboard Packaging	13.3%	13.5%	11.5%	11.2%	11.3%	11.3%	11.4%	11.4%	11.5%	11.6%	11.6%	11.7%	11.7%	11.8%
Corporate/Other/Eliminations	3.3%	3.8%	2.6%	2.3%	2.3%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%

#### Bull Case

Paperboard Mills	9.2%	9.1%	17.9%	17.8%	17.7%	17.6%	17.5%	17.5%	17.4%	17.3%	17.2%	17.2%	17.1%	17.0%
Americas Paperboard Packaging	74.3%	73.7%	68.0%	68.7%	68.8%	68.8%	68.8%	68.9%	68.9%	68.9%	69.0%	69.0%	69.0%	69.0%
Europe Paperboard Packaging	13.3%	13.5%	11.5%	11.2%	11.3%	11.3%	11.4%	11.4%	11.5%	11.6%	11.6%	11.7%	11.7%	11.8%
Corporate/Other/Eliminations	3.3%	3.8%	2.6%	2.3%	2.3%	2.3%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%

#### Stress Case

Paperboard Mills	9.2%	9.1%	17.9%	17.8%	17.7%	17.5%	17.4%	17.3%	17.2%	17.1%	17.1%	17.0%	16.9%	16.8%
Americas Paperboard Packaging	74.3%	73.7%	68.0%	68.7%	68.9%	69.1%	69.3%	69.5%	69.7%	69.8%	69.9%	70.0%	70.1%	70.1%
Europe Paperboard Packaging	13.3%	13.5%	11.5%	11.2%	11.1%	11.1%	11.0%	10.9%	10.9%	10.9%	10.9%	10.9%	10.9%	10.9%
Corporate/Other/Eliminations	3.3%	3.8%	2.6%	2.3%	2.3%	2.3%	2.2%	2.2%	2.2%	2.2%	2.2%	2.2%	2.1%	2.1%

# APPENDIX

## Cost Model

### Cost Model

					Forecast Period									
2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E	
<b>Operating Assumptions</b>														
<b>COGS - D&amp;A % of Revenue</b>														
Current Case	Base Case			75.6%	75.6%	75.5%	75.4%	75.3%	75.3%	75.2%	75.1%	75.1%	75.0%	
Base Case	74.3%	76.3%	77.0%	74.9%	75.6%	75.6%	75.5%	75.4%	75.3%	75.3%	75.2%	75.1%	75.1%	75.0%
Bull Case	74.3%	76.3%	77.0%	74.9%	75.6%	75.6%	75.5%	75.4%	75.3%	75.3%	75.2%	75.1%	75.1%	75.0%
Stress Case	74.3%	76.3%	77.0%	74.9%	75.6%	75.6%	75.5%	75.4%	75.3%	75.3%	75.2%	75.1%	75.1%	75.0%
<b>SG&amp;A as a % of Revenue</b>														
Current Case	Base Case			8.1%	8.1%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	
Base Case	8.2%	7.9%	7.8%	8.3%	8.1%	8.1%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Bull Case	8.2%	7.9%	7.8%	8.3%	8.1%	8.1%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
Stress Case	8.2%	7.9%	7.8%	8.3%	8.1%	8.1%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%	8.0%
<b>Other as a % of Revenue</b>														
Current Case	Base Case			0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	
Base Case	0.9%	0.8%	0.4%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	
Bull Case	0.9%	0.8%	0.4%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	
Stress Case	0.9%	0.8%	0.4%	0.8%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	0.7%	
<b>EBITDA Margin</b>														
Current Case	Base Case			15.6%	15.7%	16.9%	17.0%	17.0%	17.1%	17.1%	17.2%	17.3%	17.3%	
Base Case	16.6%	15.1%	14.8%	16.0%	15.6%	15.7%	16.9%	17.0%	17.0%	17.1%	17.1%	17.2%	17.3%	
Bull Case	16.6%	15.1%	14.8%	16.0%	15.6%	15.7%	17.3%	17.3%	17.4%	17.4%	17.5%	17.5%	17.6%	
Stress Case	16.6%	15.1%	14.8%	16.0%	15.6%	15.7%	16.5%	16.6%	16.7%	16.7%	16.8%	16.9%	17.0%	

Source(s): Capital IQ

# APPENDIX

## Cost Model

### Cost Model

#### EBITDA Calculation

##### COGS - D&A

Current Case	Base Case					4,748.9	4,834.3	4,918.6	5,001.8	5,083.7	5,164.2	5,243.2	5,320.6	5,396.3	5,470.2
Base Case		3,193.0	3,360.7	4,642.0	4,615.6	4,748.9	4,834.3	4,918.6	5,001.8	5,083.7	5,164.2	5,243.2	5,320.6	5,396.3	5,470.2
Bull Case		3,193.0	3,360.7	4,642.0	4,615.6	4,772.2	4,881.9	4,991.4	5,100.7	5,209.7	5,318.2	5,426.1	5,533.3	5,639.7	5,745.1
Stress Case		3,193.0	3,360.7	4,642.0	4,615.6	4,736.5	4,807.4	4,875.4	4,940.2	5,001.7	5,059.6	5,113.8	5,164.2	5,210.6	5,252.9

##### SG&A

Current Case	Base Case					506.3	515.4	524.4	533.3	542.1	550.7	559.2	567.5	575.6	583.5
Base Case		353.4	347.5	472.1	511.8	506.3	515.4	524.4	533.3	542.1	550.7	559.2	567.5	575.6	583.5
Bull Case		353.4	347.5	472.1	511.8	508.8	520.5	532.2	543.9	555.5	567.1	578.7	590.2	601.5	612.8
Stress Case		353.4	347.5	472.1	511.8	505.0	512.6	519.8	526.8	533.4	539.6	545.4	550.8	555.8	560.3

##### Other

Current Case	Base Case					44.5	45.3	46.0	46.8	47.5	48.3	49.0	49.7	50.4	51.1
Base Case		40.2	34.1	22.1	46.7	44.5	45.3	46.0	46.8	47.5	48.3	49.0	49.7	50.4	51.1
Bull Case		40.2	34.1	22.1	46.7	44.7	45.7	46.7	47.7	48.7	49.7	50.7	51.7	52.7	53.6
Stress Case		40.2	34.1	22.1	46.7	44.4	45.0	45.6	46.2	46.8	47.3	47.8	48.2	48.7	49.0

##### Synergies from Mill Consolidation

Current Case	Base Case					--	--	75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Base Case	75							75.0	75.0	75.0	75.0	75.0	75.0	75.0	75.0
Bull Case	100							100.0	100.0	100.0	100.0	100.0	100.0	100.0	100.0
Stress Case	50							50.0	50.0	50.0	50.0	50.0	50.0	50.0	50.0

##### EBITDA

Current Case	Base Case					980.1	1,003.6	1,102.0	1,125.5	1,148.8	1,172.1	1,195.3	1,218.3	1,241.2	1,263.8
Base Case		711.5	663.3	893.2	986.0	980.1	1,003.6	1,102.0	1,125.5	1,148.8	1,172.1	1,195.3	1,218.3	1,241.2	1,263.8
Bull Case		711.5	663.3	893.2	986.0	984.9	1,013.5	1,142.2	1,171.2	1,200.4	1,229.8	1,259.4	1,289.0	1,318.8	1,348.6
Stress Case		711.5	663.3	893.2	986.0	977.5	998.0	1,068.0	1,087.5	1,106.5	1,124.9	1,142.6	1,159.7	1,176.1	1,191.6



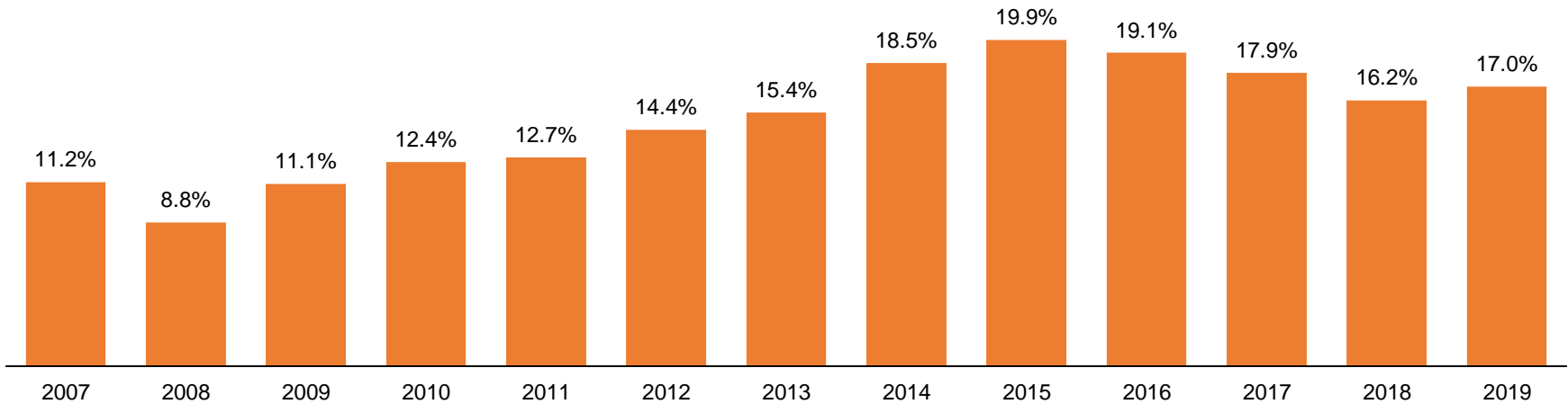
# CapEx Projections

## CapEx Projections

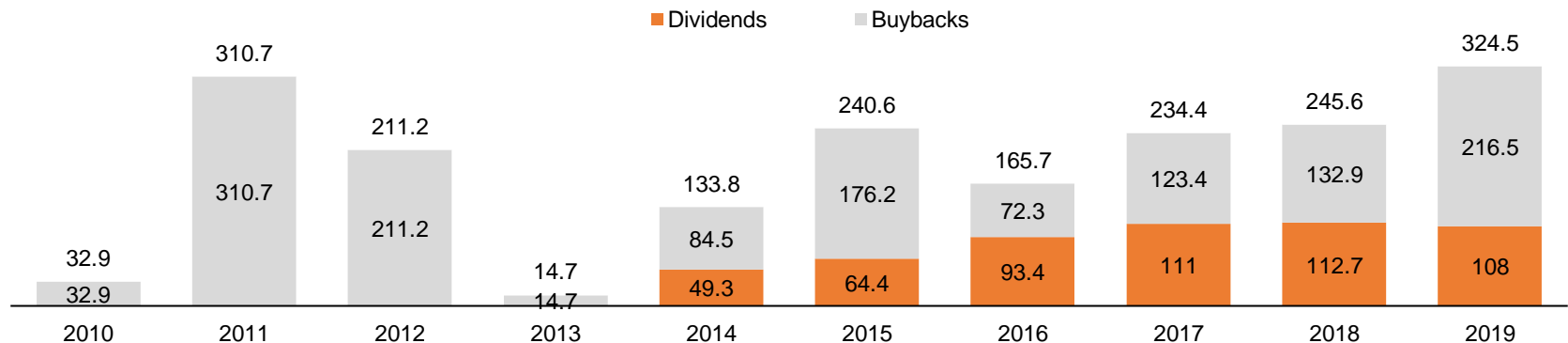
					Forecast Period									
	2016A	2017A	2018A	2019A	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	2029E
<b>CapEx Projections</b>														
<b>Maintenance CapEx % of Revenue</b>														
Current Case	Base Case				10.0%	9.8%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Base Case	5.9%	6.6%	5.7%	10.0%	10.0%	9.8%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Bull Case	5.9%	6.6%	5.7%	10.0%	10.0%	9.8%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
Stress Case	5.9%	6.6%	5.7%	10.0%	10.0%	9.8%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%	6.0%
<b>D&amp;A as a % of CapEx</b>														
Current Case	Base Case				73.6%	73.6%	122.7%	119.6%	116.5%	113.5%	110.4%	107.3%	104.2%	98.0%
Base Case	103.2%	129.0%	110.1%	128.1%	73.6%	73.6%	122.7%	119.6%	116.5%	113.5%	110.4%	107.3%	104.2%	98.0%
Bull Case					73.6%	73.6%	122.7%	119.6%	116.5%	113.5%	110.4%	107.3%	104.2%	98.0%
Stress Case					73.6%	73.6%	122.7%	119.6%	116.5%	113.5%	110.4%	107.3%	104.2%	98.0%

# Superior Business Model Translates to Strong Returns

## ROIC over past 12 years



## Over \$1.9bn of Capital Returned to Shareholders since 2010



1. ROIC defined as EBITDA/(LT Debt + ST Debt + APIC + Minority Interest)