

#### **Presented To**

#### The Ivey Business School Ben Graham Centre for Value Investing

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#### January 29, 2020

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- Psychology of the market
- Inflation, interest rates, and their importance on multiples
- <u>Company fundamentals</u>
  - Examples:
    - Schlumberger
    - Westrock vs International Paper
- Being mentally prepared
- Q/A



# **Psychology of The Market**



# "You either learn through wisdom and knowledge or suffering and woe, and you continue to suffer until you learn."

#### ~James Allen



"These crowd madnesses (1929) recur so frequently in human history that they must reflect some deeply rooted trait of human nature. Perhaps it is the same kind of force that motivates the migrations of birds...

There seems to be a cyclical rhythm in these movements. A bull market, for example will be sweeping along then something will happen — trivial or important — and first one man will sell and then others will sell and the <u>continuity of thought toward higher</u> prices is broken."

#### ~Bernard Baruch, My Own Story, 1957

# Barron's – January 1, 1973 Not a Bear Among Them Our Panel Is Bullish on Wall Street, Business, the Market

A LTHOUGH the stock market is now at an all-time high, the price of a seat on the New York Stock Exchange has undergone a drastic markdown, and shares of the publicly-owned brokerage houses are not exactly setting the world on fire. Are these merely statistical quirks, or are they indications that people have doubts about the long-term viability of the business?

Chase: We're not members of the Exchange, so I can't give you an in-

sider's view on the subject, but I'd suspect that the seat price situation ties into the question of public psychology. And I see it as something of a hopeful sign — a sign that investor psychology is at a pretty how ebb. If

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we view this as an odd-lot indicator, it suggests that the market has a long way to go before it runs into serious danger of topping out. As for the question of the publicly-owned brokerage houses, the industry seems to be in much stronger financial condition today than it was a year or so ago when these shares probably should have been under pressure. I'd suspect the market is currently overdiscounting the hazards and cyclical nature of the business.

Barron's: But why should a sent that once went for more than \$300,-000 now be selling at less than \$200,-600?

Schloss: We own nine sents. They

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On December 11, the editors of Barron's and 10 experts from the world of finance gathered around a conference table and peered into the future. For three hours, they conducted a free-wheeling discussion which ranged from the changing face of Wall Street and developments on the international scene to the '73 outlook for inflation, business, corporate profits and a variety of individual securities. All agreed that the stock market scened likely to work its way higher during the year. After that, however, everyone had different views on the best way to translate the anticipated move into profits.

The round-table participants, all of whom were interviewed individually during 1972 in Barron's Talking Money series, included the following:

- William W. Baker, partner and director of research at McDonald & Co., a Cleveland-based NYSE member firm.
- Robert G. Bennett, president of Petroleum Corp. of America,
   an \$80-million closed-end investment fund.
- Derwood S. Chase, Jr., president of Chase Investment Counsel Corp., a Charlottesville (Va.) firm which manages over \$50 million of investment funds.
- Edward (Ned) B. Goodnow, managing partner of Goodnow, Gray & Co., a \$20-million private investment partnership.
- Donald F. Kohler, senior investment officer of First National Bank Trustees, a Louisville (Ky.) bank holding company which manages over \$1 billion of securities.
- Archie F. MacAllaster, portfolio manager of the \$19-million Pilgrim Fund and president of Pitfield, MacKay & Co., the U.S. arm of a Canadian brokerage firm.
- Herris J. Nelson, dean of Wall Street columnists and author of the weekly Trader column for Barron's.
- Irwin Schloss, president of Marcus Schloss & Co., a NYSE specialist firm which makes markets in Natomas, Burroughs, Texas Instruments and a dozen or so other Big Board issues.
- Robert L. Schwartz, executive vice president and director of research at Riter, Pyne, Kendall & Hollister, a NYSE

some of the other follows, and we're not in a position to do the dictating I'm told other people do, but our commissions on larger trades are running anywhere from 50% of the rate paid on the first \$300,000 down to as little as 15% or 20%. I don't get into the actual mechanics of how these things are done, but my people tell me it's working. We have a very friendly, likeable trader, so that might have something to do with it. But in any case, about eight or nine months ago, we negotiated a trado on 60,000 shares of Texaco at a commission that worked out to a nickel a share.

Barron's: Bob, have you had a similar experience?

Bennett: No. Just the opposite. We haven't found negotiated commissions to be a

great windfall at all. We did a survey on this a few months ago, and, relative to regular commissions, we figured we've saved something between ten and fifteen one-hundreths of 1%. In other words, if we had gotten an



eighth better on the price, we would have come out ahead. As for the level of Stock Exchange seat prices, I think it reflects in part some of the subtle changes that have taken place in the business. In the old days, there was a club aspect to membership on the floor, People made a lot of money trading for their



#### S&P 500 Index Price 1968 - 1979





#### Change in Price Due to Inflation, Multiples, & Earnings

Date	CPI	P/E	S&P 500	S&P 500
	Inflation	Multiple	Earnings	Price
January 1973	3.2%	19.1	\$6.2	\$120
December 1974	11.0%	7.3	\$9.2	\$62
Change	244%	61.8%	48.4%	48.3%
	Increase	Decrease	Increase	Decrease

Source: Century Management, Bloomberg. Numbers have been rounded.



#### August 12, 1979





# "Invest at the point of maximum pessimism."

#### ~John Templeton



#### S&P 500 1979 - 1985





#### Change in Price Due to Inflation, Multiples, & Earnings

Date	CPI	P/E	S&P 500	S&P 500
(10-Years)	Inflation	Multiple	Earnings	Price
April 1980	13.5%	7.1	\$15.18	\$106.3
April 1990	5.4%	14.6	\$22.60	\$330.0
Change	60%	105.6%	48.88%	210.4%
	Decrease	Increase	Increase	Increase

Source: Century Management, Bloomberg. Numbers have been rounded.



# Inflation, Interest Rates, and Their Importance on Multiples







Value Line <sup>®</sup>	S&P 500 Index <sup>®</sup>		
<ul> <li>Median P/E</li> </ul>	<ul> <li>Average P/E</li> </ul>		
<ul> <li>2-Qtrs. Forward Earnings</li> <li>2-Qtrs. Trailing Earnings</li> </ul>	<ul> <li>4-Qtrs. of Forward Earnings</li> </ul>		
• 1,700 Companies	<ul> <li>500 Companies</li> </ul>		

#### Entire Period From Low Inflation to High Inflation Back to Low Inflation



Source: Bloomberg, Value Line®

Range	Bottom	Тор
Worst Case (bottom 10%)	4.8	8.6
Value Zone (10% to 25%)	8.6	12.8
Expensive Zone (top 80%)	18.1	21.1





### High Inflation Period



Range	Bottom	Тор
Worst Case (bottom 10%)	4.8	6.8
Value Zone (10% to 25%)	6.8	7.1
Expensive Zone (top 80%)	8.3	9.9

High Inflation Period:1973 to 1982 (9 years)
Value Line PE Median = 7.6
Median BAA Rate = 13.9%

**Median Inflation Rate = 9.4%** 

Source: Bloomberg, Value Line®

### Middle Year's or Average Inflation Period



Range	Bottom	Тор
Worst Case (bottom 10%)	9.0	11.5
Value Zone (10% to 25%)	11.5	13.1
Expensive Zone (top 80%)	17.7	19.5

Middle Years: 1982 to 2008 (26 years)
Value Line PE Median = 15.4
Median BAA Rate = 8.3%
Median Inflation Rate = 2.8%

Source: Bloomberg, Value Line

#### Low Inflation Period

Value Line PE Multiples Low Inflation Period 2009 to 2019 (10 Years) 22 21 20 **Expensive Zone** MA A A 19 18 Multiple 16 Value Zone 15 14 Worst Case 13 12 Nov 15 May 14 Jun 09 Dec 09 Jun 10 Dec 10 Dec 11 Jun 12 Nov 12 May 13 Nov 13 Nov 14 May 15 May 16 Nov 16 May 17 Nov 17 May 18 Nov 18 May 19 Nov 19 Jun 11

Range	Bottom	Тор
Worst Case (bottom 10%)	12.9	15.0
Value Zone (10% to 25%)	15.0	16.2
Expensive Zone (top 80%)	18.8	21.1

Low In	flation Period: 2009 to 2019 (10 years)
	Value Line PE Median = 17.5
	Median BAA Rate = 4.9%
	Median Inflation Rate = 1.9%

Source: Bloomberg, Value Line®

Premium to Inflation For Various Bond Rates From 1973 to 2019					
Period	BAA Rate Median	AAA Rate Median	30 Year Treasury Median	10 Year Treasury Median	
Entire Period 1973 to 2019	5.4%	4.5%	3.2%	3.1%	
High Inflation 1973 to 1982	4.4%	2.6%	1.9%	2.0%	
Middle Years 1982 to 2008	5.5%	4.7%	3.8%	3.5%	
Low Inflation 2008 to 2019	3.0%	2.1%	1.2%	0.5%	
Average Premium to Inflation of Three Periods	4.3%	3.1%	2.3%	2.0%	
+ Current Inflation	1.8%	1.8%	1.8%	1.8%	
= What Interest Rates Would Be If They Were <u>Normalized</u>	6.1%	4.9%	4.1%	3.8%	
Interest Rates <u>Today</u> (January 27, 2020)	3.68%	2.82%	2.05%	1.60%	

Source: Bloomberg, Century Management. To arrive at 12/31/19 inflation, we averaged CPI at 2.3%, PCE at 1.6%, and the TIPS implied inflation at 1.6% = 1.83%.



	S&P 500 and Value Line <sup>®</sup> P/E					
Inflation			Average S&P 500 P/E	Value Line <u>Median</u> P/E		
0%	to	1.0%	15.59	15.80		
1.0%	to	1.5%	20.39	17.45		
1.5%	to	2.0%	18.13	17.50		
2.0%	to	2.5%	19.48	17.50		
2.5%	to	3.0%	19.19	15.60		
3.0%	to	3.5%	23.05	15.55		
3.5%	to	4.0%	20.43	15.00		
4.0%	to	4.5%	14.91	12.80		
4.5%	to	5.0%	12.77	11.50		
5.0%	to	6.0%	14.42	10.30		
6.0%	to	8.0%	10.96	7.60		
8.0%	to	10.0%	8.09	7.60		
10.0%	to	12.0%	8.27	7.60		
12.0%	to	14.0%	7.74	7.40		

Source: Bloomberg, Value Line<sup>®</sup>



April 22, 2019





### **Company Fundamentals:**

# Schlumberger (SLB)

Some of the Valuation Metrics We Consider

Enterprise Value Compared to:

- Sales
- EBITDA
- EBIT

Price Compared to:

- Book Value
- Tangible Book Value
- Sales
- Net Current Assets
- Operating Earnings
- Cash Flow
- Free Cash Flow

#### We average the 3 lowest years of applicable multiples.



#### S&P 500 Oil & Gas Equipment & Services Sub Industry

#### **Price to Book**

Low		High		% of Time Likely		
			Number of Days	%	Cumulative %	To Go Higher
7.10	-	7.70	7	0.1%	100.0%	0.0%
6.50	-	7.10	5	0.1%	99.9%	0.1%
5.90	-	6.50	62	0.8%	99.8%	0.2%
5.30	-	5.90	422	5.6%	99.0%	1.0%
4.70	-	5.30	766	10.1%	93.4%	6.6%
4.10	-	4.70	613	8.1%	83.3%	16.7%
3.50	-	4.10	578	7.6%	75.2%	24.8%
2.90	-	3.50	1094	14.5%	67.5%	32.5%
2.30	-	2.90	2318	30.7%	53.1%	46.9%
1.70	-	2.30	1344	17.8%	22.4%	77.6%
1.10	-	1.70	348	4.6%	4.6%	95.4%
0.50	-	1.10	0	0.0%	0.0%	100.0%
			7557			
Current		1.36	01/28/20	020	0.8%	99.2%
Current		1.25	Standard Deviations	below the me	dian	
High		7.65	07/22/1	997		
Low		1.20	08/27/2	019		
Average		3.21				
Median		2.82				
Std Deviation		1.17				

Data from Bloomberg: 01/31/1990 to 01/28/2020



#### S&P 500 Oil & Gas Equipment & Services Sub Industry

#### **EV to Sales**

			Days		% of Time Likely	
Low	High	Number of Days	%	Cumulative %	to Go Higher	
3.45	3.45 - 3.70		0.3%	100.0%	0.0%	
3.20	- 3.45	195	2.5%	99.7%	0.3%	
2.95	- 3.20	422	5.4%	97.2%	2.8%	
2.70	- 2.95	490	6.3%	91.8%	8.2%	
2.45	- 2.70	481	6.1%	85.5%	14.5%	
2.20	- 2.45	807	10.3%	79.4%	20.6%	
1.95	- 2.20	1003	12.8%	69.1%	30.9%	
1.70	- 1.95	1382	17.7%	56.2%	43.8%	
1.45	- 1.70	1024	13.1%	38.6%	61.4%	
1.20	- 1.45	1134	14.5%	25.5%	74.5%	
0.95	- 1.20	858	11.0%	11.0%	89.0%	
0.70	- 0.95	2	0.0%	0.0%	100.0%	
		7824				
Comment	1.29	01/27/2	020	18.1%	81.9%	
Current	0.96	Standard Deviation	s below the mea	dian		
High	3.61	09/21/2	007			
Low	0.91	08/31/1	998			
Average	1.94					
Median	1.87					
Std Deviation	0.61					

Data from Bloomberg: 01/31/1990 to 01/27/2020

### Schlumberger & WTI Oil Price History





#### Schlumberger Price History



### CM Schlumberger: Identify and Analyze How Company Executes During Economic and Industry Cycles



Source: Bloomberg, Century Management



# The Importance of Understanding

#### "Worst Case"

#### Schlumberger: Analyze How the Company Executes and How it's Valued During Peaks and Troughs

EV/EBITDA	
Low High	·
12/31/1994 7.86 9.8	Schlumberger Price Graph
12/31/1995 7.01 9.7	
12/31/1996 7.87 12.8	120
12/31/1997 8.81 (16.8)	
12/31/1998 8.57 17.7	
12/31/1999 15.33 23.6	
12/31/2000 15.50 24.9	
12/31/2001 9.56 16.9	
12/31/2002 9.21 11.8	
12/31/2003 12.41 17.8	
12/31/2004 11.91 15.4	
12/31/2005 9.84 15.7	
12/31/2006 10.45 14.6	
12/31/2007 8.58 16.8	
12/31/2008 5.50 15.3	
12/31/2009 6.72 13.3	
12/31/2010 9.46 15.0	
12/31/2011 8.55 13.7	
12/31/2012 8.03 10.5	
12/31/2013 7.84 10.6	- 20
12/31/2014 8.20 11.9	
12/31/2015 9.63 13.2	
12/31/2016 14.80 20.2	
12/31/2017 14.64 20.0	1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013 2014 2015 2016 2017 2018 2019
12/31/2018 9.35 18.6	
12/31/2019 8.99 12.7	Source: Bloomberg, Century Management

### Schlumberger: We Then Analyze the Current and our Estimates Future State of the Business

								I	E	//EBITDA
		LOW		MULTIPLE	S				wc	7
									BUY	8.40
							Median		FV	11.2
	1994/95	1998	2002	2008/09	Lowest	Lowest Years	of 25 YR Lows		SELL	14
EV/EBITDA	7.4	8.6	9.2	6.1	6.1	8.4	9.1			
EV/SLS	1.6	1.8	1.9	1.9	1.6	1.9	2.2			EV/SLS
P/FREECASH	55.6	48.8	23.5	14.7	14.7	42.6	23.9		WC	1.6
P/E	18.6	20.4	34.6	10.5	10.5	24.5	19.5		BUY FV	1.92 2.46
Div's Yield	3.2%	2.0%	2.2%	2.4%	2.03%	2.4%	2.0%		SELL	3.00
		HIG		MULTIPLE	S	$\frown$				
										REE CASH
						Next 3	Median		WC	12
					(	Highest	o <sup>F</sup> 25 YR		BUY FV	14.40 19.70
	1997/98	2000	2006/07	2014	Peak	Years	Highs		SELL	25.00
EV/EBITDA	17.3	24.9	15.7	11.9	24.9	14.9	15.2		JELL	25.00
EV/SLS	3.9	5.4	5.5	3.3	5.5	4.9	3.8			
P/FREECASH	134.0	129.0	38.5	21.0	134.0	100.5	21.0			P/E
P/E	38.2	69.0	25.4	21.2	69.0	44.2	21.2		wc	15
Div's Yield	0.9%	0.9%	0.7%	1.4%	0.65%	1.0%	2.0%		BUY	18.00

Source: Bloomberg, Century Management

FV

SELL

24.00

30.00



# Schlumberger EV/ EBITDA





### Schlumberger EV/ SALES



We Analyze the Current State Against our Estimate of the Future Sate of the Business and Apply Appropriate Multiples to our Forecast of Future Fundamentals

		EV/E	BITDA	2020	2021	2022	2023	2024	2025	2026	2027
Company =	Schlumberger	wc	7	23.7	25.9	29.1	32.3	35.2	38.3	41.7	45.4
		BUY	8.40	30.5	33.1	36.8	40.6	43.9	47.4	51.2	55.3
Date		FV	11.2	43.9	47.4	52.3	57.1	61.2	65.5	70.2	75.2
Price	e \$37.22	SELL	14	57.4	61.7	67.7	73.6	78.6	83.6	89.1	95.0
Mkt Cap (B)	\$51.5										
PRICE STR	UCTURE	EV	/SLS	2020	2021	2022	2023	2024	2025	2026	2027
WC	26	wc	1.65	29.2	30.4	32.3	34.6	37.4	40.6	44.0	47.8
		BUY	1.98	37.1	38.5	40.6	43.3	46.6	50.1	54.0	58.2
BUY	32	FV	2.49	49.2	51.0	53.6	56.8	60.6	64.8	69.4	74.3
FV	43	SELL	3.00	61.3	63.5	66.5	70.3	74.7	79.5	84.7	90.4
SELL	55										
5-Yr Sell	84	P/FRE	E CASH	2020	2021	2022	2023	2024	2025	2026	2027
Dividend	\$2.00	wc	12	25.3	27.8	31.4	34.6	37.0	39.4	42.0	44.8
		BUY	14.40	30.3	33.4	37.6	41.5	44.4	47.3	50.4	53.8
Yield	5.4%	FV	19.70	41.5	45.7	51.5	56.8	60.7	64.7	69.0	73.6
		SELL	25.00	52.7	58.0	65.3	72.0	77.1	82.1	87.6	93.4

1	P/E	2020	2021	2022	2023	2024	2025	2026	2027
wc	15	24.4	28.1	33.2	38.0	42.0	46.0	50.2	54.8
BUY	18.00	29.3	33.7	39.8	45.6	50.4	55.1	60.3	65.8
FV	24.00	39.0	44.9	53.1	60.8	67.1	73.5	80.4	87.7
SELL	30.00	48.8	56.2	66.4	76.1	83.9	91.9	100.5	109.6

AVERAGE	2020	2021	2022	2023	2024	2025	2026	2027
wc	25.7	28.1	31.5	34.9	37.9	41.1	44.5	48.2
BUY	31.8	34.7	38.7	42.8	46.3	50.0	54.0	58.3
FV	43.4	47.2	52.6	57.9	62.4	67.1	72.2	77.7
SELL	55.1	59.8	66.5	73.0	78.6	84.3	90.5	97.1

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Source: Century Management, Bloomberg. 5-year sell point based on the 2025 average sell target. The information provided in this report should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that the markets, sectors, or companies discussed in this presentation were or will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable.


### "The function of the margin of safety is, in essence, that of rendering unnecessary an accurate estimate of the future."

### **~Ben Graham**



### "Price determines return."

### **~Ben Graham**

### Schlumberger: Reward-to-Risk to CM Current Sell Target

Company =	Company = Schlumberger								
CM PRICE STRUCTURE									
WC	26								
BUY	32								
FV	43								
SELL	55								
Dividend	\$2.00								
Yield	5.4%								

Buy Price	Worst Case	% Decline	Current	% Increase	Reward to Risk
\$32	\$26	-18.8%	\$55	71.9%	4.8-to-1
\$30	\$26	-13.3%	\$55	83.3%	6.3-to-1
\$28	\$26	-7.1%	\$55	96.4%	13.5-to-1

Source: Century Management, Bloomberg. CM current sell point based on the 2020 average sell target. The information provided in this report should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that the markets, sectors, or companies discussed in this presentation were or will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable.

### Schlumberger: Reward-to-Risk to CM 5-Year Sell Target

Company =	Schlumberger
CM PRICE ST	<b>FRUCTURE</b>
WC	26
BUY	32
FV	43
SELL	55
5-Yr Sell	84
Dividend	\$2.00
Yield	5.4%

Buy Price	Worst Case	% Decline	5-Yr Sell	% Increase	Reward to Risk
\$32	\$26	-18.8%	\$84	162.5%	8.7-to-1
\$30	\$26	-13.3%	\$84	180.0%	13.5-to-1
\$28	\$26	-7.1%	\$84	200.0%	42.0-to-1

Source: Century Management, Bloomberg. CM 5-year sell point based on the 2025 average sell target. The information provided in this report should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that the markets, sectors, or companies discussed in this presentation were or will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable.

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### **Company Fundamentals**

## Westrock (WRK) vs International Paper (IP)



- Thesis: After years of consolidation, we believe the North American containerboard industry has become extremely rational and disciplined, potentially enhancing long-term shareholder returns for the industry participants.
  - Led by International Paper, the industry has spent the last few decades consolidating and rationalizing the industry.
  - 1995: The top 5 players controlled 43% of the North American market.
  - 2019: The top 5 players control 78% , with the top 2 controlling 54%.
  - Consolidation has resulted in industry-wide capital discipline, improved capacity utilization, higher margins, sustainable free-cash flow through the cycle, higher ROIC, and increased return to shareholders.
  - International Paper (31% market share) and WestRock (23% market share) are the top two producers in the North American containerboard industry.
- Opportunity: The U.S. / China trade war resulted in slower world GDP and a near-term build in containerboard inventory. The stock prices of containerboard companies fell, as the market anticipated a potential recession and slower profit growth. We believe that the stock prices of containerboard companies not only discounted a recession, but acted in a highly disciplined manner by reducing production rates and rapidly reducing weeks of inventory towards the lower end of historical levels. With excess industry inventory quickly cleared, we believe the industry is setup for improved profits, while at the same time these stocks have been priced for recession.



## International Paper and WestRock Thesis ... Continued

- Our assessment of the industry led us to the industry leaders, International Paper and WestRock.
  - We found both companies to be investment worthy at very good values.
  - However we ultimately preferred WestRock over International paper.
- Both companies excel in operational excellence, driving waste and cost out of their operations through their continual improvement programs.
- Both have been disciplined capital allocators.
- Both generate substantial sustainable free-cash flow.
- Both return excess capital to shareholders through share repurchase and dividends.
- We believe both offer very good total returns through price appreciation and a healthy dividend.
- However, when deciding between the two we ultimately chose WestRock.
- While International paper is the containerboard industry leader, they also participate in the
- free-sheet paper market, which we view less favorably.
- International Paper also has several joint ventures (Russia, China), that add more complexity to their operations and valuation.
- From a valuation standpoint, International paper has always been priced at a slight premium to WestRock. However, we believe as WestRock continues to execute, the valuation gap will likely close, though to be conservative we don't include this in our projections.

International Paper
Market Cap: \$17.5 Billion
Closing Price on 11/18/19: \$45.88
4.47% Divided Yield Based on \$45.88
g Structure
\$36.6 Estimated Worst Case
\$44.2 Buy Price
\$55.8 Fair Value Estimate
\$67.4 Near-Term Sell Target
\$96.7 5-Year Sell Target
Returns
-20.23% Implied Return Down to Worst Case
110% Implied Return to CM 5-Year Sell Target
-to Risk
2.3-to-1 Reward Risk Based on Near-Term Sell
5.5-to-1 Reward Risk to CM 5-Year Sell Target

Numbers have been rounded. Implied returns are based on the average price for Westrock on November 18, 2019 and the closing price of International Paper on November 18, 2019. Past performance is not indicative of future results. The information provided in this report should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that Westrock or International Paper were or will prove to be profitable. Source: Century Management



### S&P 500 Paper Packaging Sub Industry

#### **EV to EBITDA**

Low		High		Days		% of Time Likely to Go
			Number of Days	%	Cumulative %	Higher
25.00	-	35.00	88	1.1%	100.0%	0.0%
23.00	-	25.00	22	0.3%	98.9%	1.1%
21.00	-	23.00	159	2.1%	98.6%	1.4%
19.00	-	21.00	133	1.7%	96.5%	3.5%
17.00	-	19.00	205	2.7%	94.8%	5.2%
15.00	-	17.00	627	8.1%	92.1%	7.9%
13.00	-	15.00	508	6.6%	84.0%	16.0%
11.00	-	13.00	1257	16.3%	77.4%	22.6%
9.00	-	11.00	1725	22.4%	61.0%	39.0%
7.00	-	9.00	2189	28.5%	38.6%	61.4%
5.00	-	7.00	712	9.3%	10.2%	89.8%
3.00	-	5.00	69	0.9%	0.9%	99.1%
			7694			
Current		8.78	01/27	/2020	36.2%	63.8%
Current		0.24	Standard Deviation	ons below the me	edian	
High		33.26	07/19/	/2013		
Low		4.08	01/18	/1996		
Average		10.96				
Median		9.80				
Std Dev		4.30				

Data from Bloomberg: 01/31/1990 to 01/27/2020



#### S&P 500 Paper Packaging Sub Industry EV to Sales

Low		High		Days		% of Time Likely to Go Higher
	_		Number of Days	%	Cumulative %	to do higher
4.05	-	4.40	20	0.3%	100.0%	0.0%
3.70	-	4.05	46	0.6%	99.7%	0.3%
3.35	-	3.70	0	0.0%	99.2%	0.8%
3.00	-	3.35	0	0.0%	99.2%	0.8%
2.65	-	3.00	0	0.0%	99.2%	0.8%
2.30	-	2.65	1	0.0%	99.2%	0.8%
1.95	-	2.30	614	7.8%	99.1%	0.9%
1.60	-	1.95	1862	23.8%	91.3%	8.7%
1.25	-	1.60	2788	35.6%	67.5%	32.5%
0.90	-	1.25	2200	28.1%	31.9%	68.1%
0.55	-	0.90	293	3.7%	3.7%	96.3%
0.20	-	0.55	0	0.0%	0.0%	100.0%
			7824			
Current		1.44	01/27	/2020	56.2%	43.8%
Current		0.14	Standard Deviati	ons above the m	edian	
High		4.13	07/10	/1995		
Low		0.63	03/09	/2009		
Average		1.45				
Median		1.38				
Std Dev		0.41				

Data from Bloomberg: 01/31/1990 to 01/27/2020



#### WestRock Co EV to EBITDA

Low		High		Days		% of Time Likely To Go
			Number of Days	%	Cumulative %	Higher
12.90	-	13.50	23	2.0%	100.0%	0.0%
12.30	-	12.90	95	8.3%	98.0%	2.0%
11.70	-	12.30	181	15.8%	89.7%	10.3%
11.10	-	11.70	136	11.9%	73.9%	26.1%
10.50	-	11.10	105	9.2%	62.0%	38.0%
9.90	-	10.50	37	3.2%	52.9%	47.1%
9.30	-	9.90	72	6.3%	49.7%	50.3%
8.70	-	9.30	140	12.2%	43.4%	56.6%
8.10	-	8.70	31	2.7%	31.2%	68.8%
7.50	-	8.10	75	6.5%	28.4%	71.6%
6.90	-	7.50	133	11.6%	21.9%	78.1%
6.30	-	6.90	118	10.3%	10.3%	89.7%
			1146			
Current		6.78	01/28	/2020	6.9%	93.1%
Current		1.44	Standard Devia	tions below the <b>i</b>	median	
High		13.18	07/17	/2017		
Low		6.07	12/24	/2018		
Average		9.79				
Median		9.78				
Std Dev		2.08				

Data from Bloomberg: 06/24/2015 to 01/28/2020



#### WestRock Co **EV to Sales** Days % of Time Low High Likely To Go Number of Higher % **Cumulative %** Days 2.00 1.90 0.3% 100.0% 0.0% 3 -1.80 1.90 3.5% 99.7% 0.3% 40 48 4.1% 1.70 1.80 96.3% 3.7% -1.70 25 2.2% 92.1% 7.9% 1.60 \_ 73 6.3% 90.0% 10.0% 1.50 1.60 1.40 1.50 113 9.8% 83.7% 16.3% 1.30 1.40 203 17.5% 73.9% 26.1% -1.30 307 26.5% 56.4% 43.6% 1.20 -1.10 1.20 214 18.5% 29.8% 70.2% -119 1.00 1.10 10.3% 11.3% 88.7% -0.90 1.00 12 1.0% 1.0% 99.0% 0.80 0.90 0 0.0% 0.0% 100.0% 1157 1.11 01/28/2020 14.5% 85.5% Current Standard Deviations below the median 0.80 1.94 07/02/2015 High 0.91 12/24/2018 Low 1.32 Average 1.28 Median **Std Dev** 0.20

Data from Bloomberg: 06/24/2015 to 01/28/2020



### WestRock Company

icker	WRK	wo
ICKEI		BU
Date	1/21/20	FV
Price	41.6	SEL
Mkt Cap	10.7	
		wo
		BUY
		FV
CM PRICES	TRUCTURE	SEL
WC	33.0	
BUY	41.8	
		wo
FV	51.0	BUY
SELL	60.3	FV
5 Yr. Sell	98.0	SEL
Dividend	1.86	
rield	4.47%	wo

EV/E	BITDA	2020	2021	2022	2023	2024	2025	2026	2027
wc	6	35.3	41.8	47.4	53.9	60.8	68.0	75.5	83.4
BUY	6.72	43.8	50.8	56.7	63.6	70.8	78.3	86.2	94.5
FV	7.61	54.4	61.9	68.3	75.5	83.1	91.1	99.4	108.1
SELL	8.5	65.0	73.1	79.8	87.4	95.4	103.8	112.6	121.7

E\	//SLS	2020	2021	2022	2023	2024	2025	2026	2027
wc	0.99	33.4	37.5	41.9	47.2	52.8	58.7	64.9	71.4
BUY	1.19	47.3	51.6	56.4	62.0	67.9	74.0	80.5	87.3
FV	1.32	56.5	61.0	65.9	71.7	77.8	84.2	90.9	97.9
SELL	1.45	65.7	70.4	75.5	81.5	87.7	94.3	101.2	108.4

	P/E	2020	2021	2022	2023	2024	2025	2026	2027
wc	9	30.8	36.7	40.7	44.8	49.1	53.5	58.2	62.9
BUY	10.80	36.9	44.1	48.8	53.8	58.9	64.3	69.8	75.5
FV	13.15	45.0	53.6	59.5	65.5	71.7	78.2	85.0	92.0
SELL	15.50	53.0	63.2	70.1	77.2	84.6	92.2	100.2	108.4

P/FR	EE CASH	2020	2021	2022	2023	2024	2025	2026	2027
wc	8.5	32.6	38.8	42.5	49.7	53.6	57.6	61.7	65.9
BUY	10.20	39.1	46.6	51.0	59.6	64.3	69.1	74.0	79.1
FV	12.60	48.3	57.5	63.0	73.7	79.4	85.4	91.5	97.7
SELL	15.00	57.5	68.5	75.0	87.7	94.6	101.6	108.9	116.3

AVERAGE	2020	2021	2022	2023	2024	2025	2026	2027
wc	33.0	38.7	43.1	48.9	54.1	59.5	65.1	70.9
BUY	41.8	48.3	53.2	59.7	65.5	71.4	77.6	84.1
FV	51.0	58.5	64.2	71.6	78.0	84.7	91.7	98.9
SELL	60.3	68.8	75.1	83.4	90.6	98.0	105.7	113.7

Source: Century Management, Bloomberg. CM 5-year sell point based on the 2025 average sell target. The information provided in this report should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that the markets, sectors, or companies discussed in this presentation were or will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable.



### International Paper

		1	EV/E	BITDA
Ticker	IP		WC	6.75
Date	1/21/20		BUY	7.56
Price			FV	8.53
			SELL	9.5
MktCap(bil)	17.5			
			EV	/SLS
			wc	1.2
			BUY	1.32
CM PRICE S	TRUCTURE		FV	1.51
wc	36.6		SELL	1.70
BUY	44.2			
FV	55.8		P	/E
SELL	67.4		wc	9
5 Yr. Sell	103.4		BUY	11.25
5 11. 501	103.4		FV	13.38
			SELL	15.50
IVIDEND	\$2.05			
DIV. YIELD	4.60%		Free	e cash
			WC	7
		l	BUY	8.40
			FV	11 70

EV/EBITDA		2019	2020	2021	2022	2023	2024	2025	2026
wc	6.75	36.7	35.0	41.1	46.3	52.2	59.3	64.9	72.1
BUY	7.56	44.7	42.6	49.4	55.0	61.4	69.2	75.2	83.0
FV	8.53	54.2	51.7	59.2	65.3	72.4	81.0	87.5	96.1
SELL	9.5	63.8	60.9	69.0	75.7	83.4	92.8	99.9	109.2

EV/SLS		2019	2020	2021	2022	2023	2024	2025	2026
wc	1.2	37.9	38.7	41.2	45.4	50.2	55.1	60.5	66.3
BUY	1.32	44.7	45.4	48.1	52.5	57.7	62.9	68.6	74.8
FV	1.51	55.4	56.1	59.0	63.8	69.5	75.2	81.5	88.3
SELL	1.70	66.1	66.7	69.8	75.1	81.3	87.5	94.4	101.7

	P/E	2019	2020	2021	2022	2023	2024	2025	2026
wc	9	38.3	32.2	37.0	40.8	45.2	50.6	54.3	59.5
BUY	11.25	47.9	40.3	46.3	51.0	56.4	63.3	67.9	74.3
FV	13.38	56.9	47.9	55.0	60.6	67.1	75.2	80.7	88.4
SELL	15.50	65.9	55.5	63.8	70.2	77.8	87.2	93.5	102.4

Fre	ee cash	2019	2020	2021	2022	2023	2024	2025	2026
wc	7	36.6	40.4	44.7	47.0	50.8	55.7	58.7	63.1
BUY	8.40	43.9	48.5	53.7	56.4	61.0	66.8	70.4	75.7
FV	11.70	61.1	67.5	74.7	78.6	85.0	93.1	98.1	105.5
SELL	15.00	78.4	86.5	95.8	100.8	109.0	119.3	125.8	135.3

Average	2019	2020	2021	2022	2023	2024	2025	2026
wc	37.4	36.6	41.0	44.9	49.6	55.2	59.6	65.3
BUY	45.3	44.2	49.4	53.7	59.1	65.5	70.5	77.0
FV	56.9	55.8	62.0	67.1	73.5	81.1	87.0	94.6
SELL	68.6	67.4	74.6	80.5	87.9	96.7	103.4	112.1

Source: Century Management, Bloomberg. CM 5-year sell point based on the 2025 average sell target. The information provided in this report should not be considered a recommendation to purchase or sell any particular security. It should not be assumed that the markets, sectors, or companies discussed in this presentation were or will prove to be profitable, or that the investment recommendations or decisions we make in the future will be profitable.



"The voice of intelligence...is drowned out by the roar of fear. It is ignored by the voice of desire. It is contradicted by the voice of shame. It is biased by hate and extinguished by anger. Most of all it is silenced by ignorance.

~Dr. Karl Menninger



### "If your life is more important than your principles, you will sacrifice your principles.

# If your principles are more important than your life, you will sacrifice your life."

### ~Dr. Rameljack, Psychiatrist

CM Getting Control of Your Thoughts and Emotions

- Truth/Lying
- Anger
- Ego

Anatomy of a Lie Adapted from Brothers Karamazov by Fyodor Dostoevsky) When you lie, you lose the ability to discern truth in yourself and others. Having lied, you lose respect for yourself and other. Not respecting anyone, you lose the ability to love. Without love, all that remains are the base pleasures of life. Indulging in all the base pleasures, you become morally deprave. And It All Started With a Lie.



**Sickness** 

Blaming &

**Hurting Others** 





- "The only way you learn to control your ego is by not feeding it."
  "David Seabury
- When you control your ego, you gain humility.

 "The last lesson of culture is humility, and if you don't have any, you have one more lesson to learn."
 ~Arnold Van Den Berg



- Truth/Lying
- Anger
- Ego
- In order to practice these principles of being in control of your emotions and thoughts, <u>I recommend that you study the subconscious mind</u>.
- If you develop the ability to control your emotions and thoughts, you will create the ability to see the truth and reality, as well as exercise good judgement.
- This will allow you the strength and character to go against the crowd instead of being part of it.
- This will help you in business and in all areas of your life.



### **Questions & Answers**



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