### **INDUSTRIAL GROWTH** *Quarterly Update Fourth Quarter 2017*



CAPITAL PLACEMENTS • MERGERS, ACQUISITIONS & DIVESTITURES • RESTRUCTURINGS



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#### March 2018

To The Friends and Clients of SOLIC Capital Advisors ("SCA"):

We are pleased to share with you SCA's SOLIConnect Industrial Growth report, which contains news, statistics and key trends for industrial sectors that we actively cover for corporate clients, institutional capital sources, legal and accounting professionals, and other interested groups. These sectors are: (i) Analytical Instrumentation and Testing Equipment, (ii) Electronics and Components, (iii) Precision Machine Products, Tooling and Stampings, (iv) Metals, (v) Resource Recovery and Waste Management, (vi) Chemicals, and (vii) Plastics and Packaging companies.

During the fourth quarter, returns for the industrials sector in the equity capital markets continued their expansion momentum with the majority of the subsectors followed by SCA continuing their positive returns after two consecutive quarters of 3% GDP growth and consumer confidence at a 17-year peak. The Metals subsector led the industry with a quarterly return of +13.5%, compared with the S&P 500 quarterly return of +5.7%. Other industry subsectors with notable positive quarterly growth include Precision Machine Products +9.0%, Resource Recovery & Waste Management +5.4%, and Analytical Instrumentation & Testing Equipment +4.3%. M&A activity for the quarter contracted compared to Q3 2017 with 189 transactions announced versus 205 deals last quarter; deal value decreased substantially at \$15.9 billion compared to \$42.9 billion last guarter, (the substantial decrease in deal value is accredited to Emerson Electric's offer for Rockwell Automation for \$30.9 billion last quarter). Notable transactions this quarter included Crown Holdings' acquisition of Signode Industrial Group for \$3.9 billion in the Chemicals sector, Prysmian's acquisition of General Cable Corporation for \$2.9 billion in the Electronics & Components sector, and Graphic Packaging International's acquisition of North America Consumer Packaging Business of International Paper Company for \$1.8 billion in the Plastics & Packaging sector.

There are certainly a long list of positives for the U.S. economy in 2017 with record low unemployment, strong returns in the broader equity markets, and an annual growth rate in the economy of 2.3%, which is the fastest pace since 2014. Looking forward, momentum is still the theme in the industrial sector as real GDP growth is anticipated to expand close to 3% in 2018, favorable domestic tax reform is providing further demand and corporate spending in this cycle, and a strong synchronous global economy coupled with a weakening dollar are supporting demand from many U.S-based manufacturers and industrial suppliers. Remarkably, many market analysts predict this economy is headed for its tenth consecutive year of business expansion should economic drivers move in the desired directions. Of particular interest within industrials, the energy sector appears poised for further growth as once-declining oil prices are stabilizing to support margin enhancement among producers and oilfield service providers. Also, foreign demand for U.S. energy outputs continues to rise without any sign of slowing. Energy producers, both domestic and foreign companies with exposure to U.S. production, have benefited greatly from technological developments in the sector, particular with shale. In fact, in 2016, the U.S became the world's largest net exporter of fuel, which is quite a change from the structural challenges facing this domestic industry just a decade ago. These strong demand indicators are likely to push U.S.-based producers to actually ramp up production later this year despite the backdrop of recent declines in oil prices. While the domestic economy still has plenty of room to run, certainly some caution should be heeded as the U.S. is late-cycle given the low unemployment numbers, a rising interest rate environment, and strong production output.

We welcome your comments and hope you find our SOLIConnect report informative.

Matt Caine Managing Director mcaine@soliccapital.com



**Edward R. Casas** Senior Managing Director ecasas@soliccapital.com



Recent Representative Engagements \* 



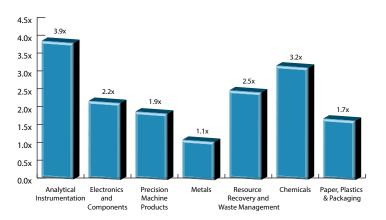
\* Includes transactions led by the team of SOLIC professionals at predecessor firms

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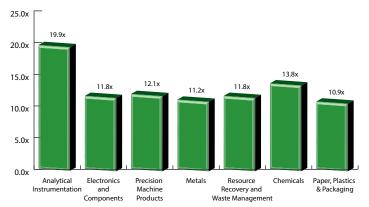


# Market Overview



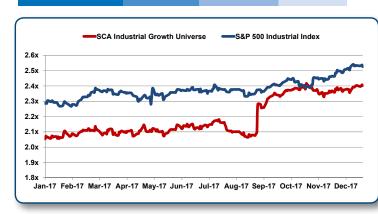


### Enterprise Value To EBITDA

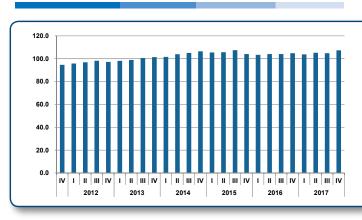


Revenue and EBITDA valuation multiples remained robust, despite a reduction in deal volume in Q4 2017 compared to Q3 2017.

### SCA Industrial Growth Universe vs. S&P 500 Total Enterprise Value / Revenue



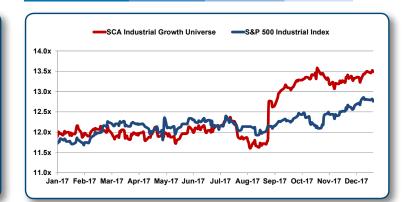
### Federal Reserve Industrial Production



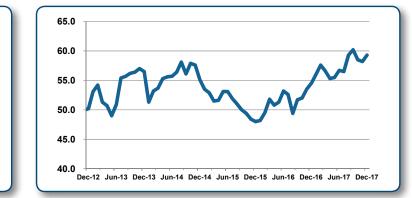
\* Please see pages 16-21 for SCA Industrial Growth Universe and additional information in the "Notes" section at the end of this report.



### SCA Industrial Growth Universe vs. S&P 500 Total Enterprise Value / EBITDA



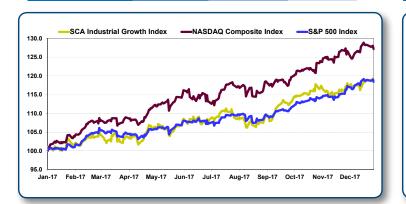
### Institute for Supply Management Purchasing Managers' Index



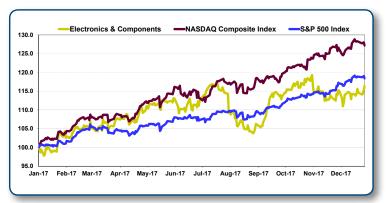


## Sector Stock Performance (one year)

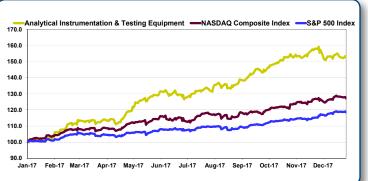
### SCA Industrial Growth Index



### SCA Electronics and Components Sector



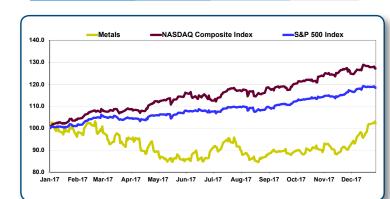
## SCA Analytical Instrumentation & Testing Equipment Sector



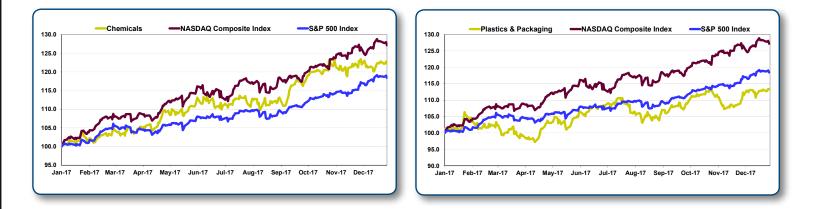
### SCA Precision Machine Products Sector



### SCA Metals Sector



### SCA Chemicals Sector



\* Please see pages 16-21 for SCA Industrial Growth Universe and additional information in the "Notes" section at the end of this report.



## SCA Resource Recovery & Waste Management Sector



### SCA Plastics & Packaging Sector



## Notable Industry Developments

### **Crude Oil Prices Gain on Production Cuts**

WTI crude oil prices increased by 19.5% to \$60.42 per barrel during the fourth guarter. Crude oil traded at its highest levels in the past two years during the fourth quarter. OPEC producing nations have extended their agreed upon supply reductions through the end of 2018. Further production cuts will be discussed at the next OPEC meeting in June. Production in the Gulf Coast region has returned to normal capacity following shut downs from Hurricanes Harvey and Nate in the third guarter. The Baker Hughes rig count reported a decrease of 3 oil rigs and 7 gas rigs in the fourth guarter, signifying a tightening pricing forecast by U.S. upstream oil and gas producers in response to OPEC's production cuts.

### Fourth Quarter 2017 GDP Growth Decelerates

The Bureau of Labor Statistics reported Q4 GDP growth of +2.6% following a revised GDP growth of +3.2% last quarter. Q4 growth was propelled by personal consumption expenditures, nonresidential fixed investment, exports, residential fixed investment, and state, local & federal government spending. Price index for gross domestic purchases increased +2.5% in the fourth guarter, compared to an increase of +1.7% in the third quarter. Price index for personal consumption expenditures increased +2.8% in the fourth guarter compared to an increase of +1.5% in the third quarter.



### SCA Industrial Growth Index Continues Its Unprecedented Growth

SCA Industrial Growth Sector guarterly returns maintained its momentum this guarter posting an average increase of +4.0% after positive gains over the past three guarters in 2017. The Metals sector posted the most substantial gains in the fourth quarter of +13.5% after a sluggish performance in previous quarter. The annual returns for the SCA Industrial Growth Sector continued its unprecedented growth of +18.9% fueled by all the subsectors reporting solid gains during 2017, notably the Analytical Instrumentation & Testing Equipment and Precision Machine Products sectors reported significant gains of +52.7% and +30.7%, respectively. The average annual performance recorded over 2017 by the broader market indices, NASDAQ and S&P 500, were +27.2% and +18.4%, respectively.

### Fourth Quarter 2017

### Manufacturing Activity Expansion Continues

Manufacturing growth continued to expand in the fourth guarter, following strong gains in September. Growth in new orders and production propelled manufacturing expansion. According to the Institute for Supply Management, the December Purchasing Managers' Index ("PMI") registered 59.7%, an increase of 1.5% from November's PMI reading of 58.2%. The PMI has steadily increased since August 2016 with a peak of 60.8% in September. A PMI greater than 50.0% represents expansion in the manufacturing sector, under 50.0% signals contraction in the sector. The New Orders Index registered 69.4%, an increase of 5.4 percentage points from November's reading of 64.0%. The Production Index registered 65.8%, 1.9 percentage points higher than November's reading of 63.9%. The Employment Index registered 57.0%, a decrease of 2.7 percentage points from November's reading of 59.7%. The Prices Index registered 69.0%, an increase of 3.5 percentage points from November's reading of 65.5%, illustrating higher raw material prices as an effect of rebuilding damaged areas from Hurricanes Harvey and Irma. 16 of the 18 manufacturing industries reported overall growth, with 15 of the 18 industries reporting an increase in new orders in December compared to last month.

### **U.S. Chemical Production Ends 2017** on a High Note

The U.S. Chemical Production Regional Index (U.S. CPRI) rose sharply in December by +50 basis points following increased production in November, according to the American Chemistry Council. The U.S. CPRI tracks U.S. chemical production measured on a three-month moving average basis. The Gulf Coast geographic region continued to recover in Q4 after its worst monthly production decline in September following production disruptions from Hurricane Harvey. U.S. national chemical production increased +450 basis points compared to December 2016, with all seven U.S. regions experiencing notable year-over-year growth in excess of 350 basis points.

### 2017 World Steel Output Expands

According to the World Steel Association, global crude steel production increased by +5.3% in 2017 compared to the same period in 2016. World production totaled 1,691.2 million tonnes (Mt) in 2017 compared to 1,606.1 Mt during the same period in 2016. U.S. production increased by +4.0% to 81.6 Mt in 2017, compared to 78.5 Mt in 2016, due to a vibrant economy and increases in business investments. Developed nations continue to exhibit strong economic growth, including rising business confidence in the U.S. Potential U.S. steel and aluminum import tariffs will have a profound effect on the global steel industry, forcing the U.S. into inevitable global trade wars.



### Upcoming Industry Conferences

Analytical Instrumentation	and Testing Equipment
Clinical Lax Expo July 29 - August 2, 2018 Chicago, IL	Microscopy & Microanalysis 2018 August 5-9, 2018 Baltimore, MD
<b>Electronics and Componen</b>	ts
Coil Winding, Insulation, and Exhibition Components May 15-18, 2018 Las Vegas, NV	IEEE Electronic Electrical Manufacturing and Technology Conference May 29 - June 1, 2018 San Diego, CA
Precision Machine Product	s, Toolings, and Stampings
Precision Machined Products Association Annual Meeting October 4-8, 2018 Orlando, FL	FABTECH November 6-8, 2018 Atlanta, GA
Metals	
The Minerals, Metals, & Materials Societies 147th Annual Meeting March 11-15, 2018 Phoenix, AZ	METALCON October 9-12, 2018 Charlotte, NC
Resource Recovery and Wa	aste Management
WasteExpo 2018 April 24-26, 2018 Las Vegas, NV	Waste Management Conference March 18-22, 2018 Phoenix, AZ
Chemicals	
World Petrochemical Conference 2018 March 19-23, 2018 Houston, TX	2018 American Chemistry Council's Annual Meeting June 4-6, 2018 Colorado Springs, CO
Plastics and Packaging	
NPE2018: The Plastics Show May 7-11, 2018 Orlando, FL	PACK EXPO International October 14-17, 2018 Chicago, IL



# C Selected M&A Transactions



Date	Target	Buyer	Enterprise Value (\$ mm)	Enterprise Value / Revenue	Enterprise Value / EBITDA
12/25/17	General Electric Company - Small Industrial Business	Wolong Electric Group Co.,Ltd.	\$142.0	n/a	n/a
Description:	Wolong Electric Group agreed to Company for approximately \$140	acquire the industrial motor manufa million.	acturing busine	ess of General E	Electric
12/21/17	JWC Environmental, LLC	Sulzer Pumps Equipment (Parent: Sulzer Ltd)	\$215.0	n/a	n/a
Description:		I into an agreement to acquire JWC green technology applications, from ue of approximately \$220 million.			
12/19/17	Signode Industrial Group LLC	Crown Holdings, Inc.	\$3,910.0	n/a	10.2x
Description:		nent to acquire Signode Industrial rlyle Group in a transaction valued			istrial
12/14/17	Albemarle Corporation - Polyolefin Catalysts Business	W. R. Grace & Co.	\$416.0	n/a	12.8x
Description:	W. R. Grace & Co. entered into an business of Albemarle Corporatio	n agreement to acquire the custom n for approximately \$420 million.	manufacturing	g polyolefin cata	alysts
12/14/17	Bimba Manufacturing Company, Inc.	Norgren Inc.	\$198.0	1.8x	14.9x
Description:	Norgren agreed to acquire Bimba \$200 million.	Manufacturing Company, a manuf	acturer of actu	ators, for appro	ximately
12/07/17	Israel Chemicals Ltd Fire Safety and Oil Additives businesses	SK Capital Partners	\$1,000.0	3.4x	n/a
Description:	SK Capital Partners signed a defi Israel Chemicals for approximatel	nitive agreement to acquire the fire y \$1.0 billion.	safety and oil	additives busin	esses of

Date	Target	Buyer	Enterprise Value (\$ mm)	Enterprise Value / Revenue	Enterprise Value / EBITDA
12/05/17	Crane & Co., Inc.	Crane Co.	\$800.0	n/a	n/a
Description:		e agreement to acquire Crane & Co e Crane family and other sharehold			oducts, from
12/04/17	General Cable Corporation	Prysmian S.p.A.	\$2,827.1	0.8x	15.7x
Description:	Prysmian entered into a definitive copper, fiber optic, and cable wire	merger agreement to acquire Gen e, for \$1.5 billion.	eral Cable Co	rporation, a pro	ducer of
11/22/17	SeaStar Solutions Incorporated	Dometic Group AB	\$875.0	n/a	n/a
Description:		greement to acquire SeaStar Soluti American Securities and others fo			r the
11/21/17	The Rapid Manufacturing Group LLC	Proto Labs, Inc.	\$119.8	n/a	n/a
Description:		rship interest purchase agreement be parts, for approximately \$120 m	•	e Rapid Manufa	cturing
11/16/17	Clopay Plastic Products Company, Inc.	Berry Global Group, Inc.	\$475.0	1.0x	9.0x
Description:		a definitive agreement to acquire C and engineered laminations, from C			
11/09/17	Talon Innovations Corporation	Ichor Holdings, LLC	\$130.0	n/a	n/a
Description:	3	stock purchase agreement to acqu roducts, from Graycliff Partners an		•	•
11/07/17	IPS Corporation	Encapsys, LLC	\$700.0	n/a	n/a
Description:	Encapsys acquired IPS, a provide others for \$700 million.	er of solvent cements and related c	omponents, fro	om Nautic Partn	ers and



Date	Target	Buyer	Enterprise Value (\$ mm)	Enterprise Value / Revenue	Enterprise Value / EBITDA
11/02/17	Hardinge Inc.	Privet Fund Management, LLC	\$197.9	0.6x	8.8x
Description:	Privet Fund Management made a of machine tools, for approximate	an indication of interest to acquire r ly \$200 million.	emaining stake	in Hardinge, a	manufacturer
10/31/17	US Salt, LLC	Kissner USA Holdings Inc. (Parent: Kissner Group Holdings LP)	\$225.0	n/a	n/a
Description:	Kissner USA Holdings agreed to Equity Partners for approximately	acquire US Salt, a producer of eva	porated salt pro	oducts, from Cr	estwood
10/24/17	North America Consumer Packaging Business of International Paper Company	Graphic Packaging International, Inc.	\$1,801.1	1.1x	n/a
Description:		entered into a transaction agreeme mer Packaging division, a manufa	•		
10/19/17	Delta T Corporation	Lindsay Goldberg LLC	\$500.0	n/a	n/a
Description:	Lindsay Goldberg & Co. agreed t Smith for \$500 million.	o acquire Delta T, a producer of ov	erhead and dire	ectional fans, fr	om J. Carey
10/05/17	LaPolla Industries, Inc.	Icynene Inc.	\$141.6	1.4x	14.3x
Description:	,	o a definitive merger agreement to om an investor consortium for app	•		nanufacturer
10/02/17	Accella Performance Materials Inc.	Carlisle Construction Materials Incorporated	\$670.0	1.6x	n/a
Description:		ntered into a securities purchase ag ormulated polyurethane systems a	•	•	

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# **Waluation** Metrics by Sector



Ticker	Company Name	Stock Price	% of 52 Week High	Market Cap (\$mm)	Enterprise Value (\$mm)	Enterprise Value to:			P/E
						LTM Revenue	LTM EBITDA	NTM EBITDA	
Analytic	al Instrumentation and Te	esting E	quipment <sup>[1]</sup>						
AME	AMETEK, Inc.	\$72.47	99.2%	\$16,749.1	\$18,443.1	4.5x	17.2x	15.6x	30.5x
CGNX	Cognex Corporation	61.16	83.8%	10,591.3	10,206.7	14.6x	38.7x	35.3x	45.1x
ESIO	Electro Scientific Industries, Inc.	21.43	77.3%	717.7	650.3	2.9x	26.1x	8.8x	NM
ESE	ESCO Technologies Inc.	60.25	91.4%	1,556.6	1,805.4	2.6x	15.5x	12.7x	29.1x
HEI	HEICO Corporation	75.48	93.0%	7,196.9	8,037.2	5.3x	21.6x	18.9x	44.1x
MTD	Mettler-Toledo International Inc.	619.52	89.2%	15,846.8	16,746.9	6.3x	26.1x	22.6x	37.6x
MTSC	MTS Systems Corporation	53.70	91.0%	955.5	1,300.9	1.7x	12.8x	10.1x	41.0x
					Mean	3.9x	19.9x	14.8x	37.9x

Electro	nics and Components								
BELF.B	Bel Fuse Inc.	25.18	75.3%	295.7	354.6	0.7x	7.0x	7.6x	24.7x
ETN	Eaton Corporation plc	79.01	96.0%	34,811.8	41,997.8	2.1x	12.8x	11.4x	12.4x
LFUS	Littelfuse, Inc.	197.82	92.0%	4,493.2	4,622.2	3.8x	15.6x	13.9x	28.8x
					Mean	2.2x	11.8x	11.0x	22.0x

Precisio	Precision Machine Products, Tooling and Stampings											
CW	Curtiss-Wright Corporation	121.85	97.5%	5,377.2	5,909.8	2.7x	13.6x	12.5x	25.1x			
HDNG	Hardinge Inc.	17.42	96.8%	225.5	193.2	0.6x	9.3x	NM	35.9x			
HURC	Hurco Companies, Inc.	42.20	90.3%	279.5	219.9	0.9x	11.0x	NM	24.8x			
KMT	Kennametal Inc.	48.41	98.2%	3,923.5	4,545.6	2.1x	13.5x	11.3x	35.8x			
ROLL	<b>RBC Bearings Incorporated</b>	126.40	90.3%	2,986.0	3,163.3	5.0x	20.6x	18.2x	42.8x			
SHLO	Shiloh Industries, Inc.	8.20	49.1%	189.6	356.6	0.3x	5.0x	4.5x	26.9x			
TKR	The Timken Company	49.15	92.6%	3,814.9	4,716.5	1.6x	11.6x	9.1x	21.7x			
					Mean	1.9x	12.1x	11.1x	30.4x			

Ticker	Company Name	Stock Price	% of 52 Week High	Market Cap (\$mm)	Enterprise Value (\$mm)	Enter	prise Valu	le to:	P/E
Herei		THEC	Week High	(@1111)		LTM Revenue	LTM EBITDA	NTM EBITDA	172
Metals F	Processors <sup>[2]</sup>								
ATI	Allegheny Technologies Incorporated	24.14	90.8%	2,628.0	4,516.9	1.3x	14.2x	10.0x	NM
CMC	Commercial Metals Company	21.32	91.6%	2,486.6	3,058.9	0.7x	12.5x	8.4x	79.0x
RS	Reliance Steel & Aluminum Co.	85.79	96.9%	6,255.4	8,091.9	0.9x	9.5x	8.7x	16.9x
TSX:RUS	Russel Metals Inc.	23.26	98.0%	1,437.4	1,704.7	0.7x	10.3x	9.1x	15.3x
SCHN	Schnitzer Steel Industries, Inc.	33.50	95.3%	883.4	1,025.2	0.6x	9.8x	7.1x	20.9x
ASX: SGM	Sims Metal Management Limited	12.32	96.5%	2,483.5	2,184.7	0.5x	10.4x	7.5x	15.5x
WOR	Worthington Industries, Inc.	44.06	82.7%	2,676.9	3,458.8	1.1x	8.9x	10.1x	16.1x
					Mean	0.8x	10.8x	8.7x	16.9x
Tube an	d Pipe Producers								
AKS	AK Steel Holding Corporation	5.66	50.2%	1,782.2	4,164.3	0.7x	6.5x	7.7x	31.3x
NWPX	Northwest Pipe Company	19.14	90.7%	184.1	179.5	1.3x	NM	18.4x	NM
SSAB A	SSAB AB	5.49	98.7%	4,914.0	6,901.6	0.9x	8.4x	6.4x	20.4x
STLD	Steel Dynamics, Inc.	43.13	98.3%	10,219.7	11,608.2	1.3x	8.6x	7.6x	19.9x
SYNL	Synalloy Corporation	13.40	87.6%	117.0	143.7	0.8x	19.9x	NM	NM
BIT:TEN	Tenaris S.A.	15.80	75.5%	18,655.0	17,990.3	3.7x	18.2x	14.1x	57.6x
Х	United States Steel Corporation	35.19	84.1%	6,158.1	7,364.1	0.6x	8.1x	5.7x	50.3x
					Mean	1.3x	11.6x	10.0x	35.9x

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SCHN	Schnitzer Steel Industries, Inc.	33.50	95.3%	883.4	1,025.2	0.6x	9.8x	7.1x	20.9x
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Х	United States Steel Corporation	35.19	84.1%	6,158.1	7,364.1	0.6x	8.1x	5.7x	50.3x
					Mean	1.3x	11.6x	10.0x	35.9x

[1] CGNX is excluded from the mean calculations of LTM Revenue, LTM EBITDA, and NTM EBITDA multiples [2] CMC is excluded from the mean calculation of P/E multiple



Ticker	Company Name	Stock Price	% of 52 Week High	Market Cap (\$mm)	Enterprise Value (\$mm)	Enter	prise Valu	ie to:	P/E
						LTM Revenue	LTM EBITDA	NTM EBITDA	
Resourc	ce Recovery and Waste N	lanage	ment						
CWST	Casella Waste Systems, Inc.	23.02	99.2%	967.8	1,450.3	2.5x	12.6x	10.8x	NM
CECE	CECO Environmental Corp.	5.13	35.5%	178.1	275.7	0.7x	6.9x	9.5x	NM
CLH	Clean Harbors, Inc.	54.20	88.0%	3,085.8	4,354.1	1.5x	10.6x	9.4x	NM
HCCI	Heritage-Crystal Clean, Inc	21.75	97.1%	497.6	493.4	1.4x	11.7x	9.9x	25.0x
RSG	Republic Services, Inc.	67.61	99.4%	22,596.9	30,392.9	3.1x	11.1x	10.5x	28.6x
ECOL	US Ecology, Inc.	51.00	91.5%	1,113.2	1,383.2	2.8x	13.6x	10.6x	42.5x
WCN	Waste Connections, Inc.	70.94	95.6%	18,702.7	22,175.8	4.9x	15.5x	14.5x	53.9x
WM	Waste Management, Inc.	86.30	99.3%	37,472.9	46,804.9	3.3x	12.2x	11.4x	27.7x
					Mean	2.5x	11.8x	10.8x	35.6x

Diversit	fied Chemicals <sup>[3]</sup>								
ASH	Ashland Global Holdings Inc.	71.20	55.5%	4,430.4	6,683.4	2.1x	12.2x	10.0x	NM
CBT	Cabot Corporation	61.59	95.3%	3,815.5	4,607.5	1.7x	9.2x	8.5x	16.2x
NYSE: DWDP	DowDuPont Inc.	71.22	96.4%	166,654.1	190,288.1	3.4x	18.4x	10.5x	37.3x
EMN	Eastman Chemical Company	92.64	97.6%	13,315.6	19,890.6	2.1x	8.9x	9.0x	13.5x
FMC	FMC Corporation	94.66	98.6%	12,709.2	14,337.4	4.3x	19.1x	13.5x	44.7x
OLN	Olin Corporation	35.58	94.8%	5,922.2	9,430.4	1.6x	10.6x	7.6x	75.9x
					Mean	2.5x	13.1x	9.9x	27.9x

[3] OLN is excluded from the mean calculation of P/E multiple

Ticker	Company Name	Stock Price	% of 52 Week High	Market Cap (\$mm)	Enterprise Value (\$mm)	Enton	orise Valu	io to:	P/E
TICKEI		FILE	Week High	(\$1111)		LTM Revenue	LTM EBITDA	NTM EBITDA	F/C
Specialt	y Chemicals								
ALB	Albemarle Corporation	127.89	88.2%	14,131.3	15,016.2	5.2x	17.7x	15.8x	45.7x
ECL	Ecolab Inc.	134.18	97.3%	38,766.5	46,191.8	3.4x	15.9x	14.8x	30.3x
FOE	Ferro Corporation	23.59	92.5%	1,978.2	2,628.5	2.0x	14.4x	9.8x	45.9x
FUL	H.B. Fuller Company	53.87	91.7%	2,711.4	3,405.7	1.5x	12.6x	7.6x	26.4x
IFF	International Flavors & Fragrances Inc.	152.61	97.4%	12,052.7	13,415.8	4.1x	19.2x	16.3x	29.2x
MTX	Minerals Technologies Inc.	68.85	82.1%	2,435.0	3,249.4	2.0x	9.2x	9.0x	15.7x
POL	PolyOne Corporation	43.50	93.0%	3,515.0	4,634.3	1.3x	11.3x	10.8x	20.8x
KWR	Quaker Chemical Corporation	150.79	90.9%	2,005.4	1,981.3	2.5x	18.0x	8.6x	42.4x
SCL	Stepan Company	78.97	84.9%	1,778.6	1,820.3	1.0x	8.7x	7.5x	20.5x
					Mean	2.5x	14.1x	11.1x	30.8x
Industria	al Gases								
APD	Air Products and Chemicals, Inc.	164.08	99.6%	35,903.5	36,310.8	4.4x	13.7x	12.0x	31.8x
PX	Praxair, Inc.	154.68	98.9%	44,285.7	53,401.7	4.8x	14.6x	13.6x	27.5x
					Mean	4.6x	14.1x	12.8x	29.7x

Ticker	Company Name	Stock Price	% of 52 Week High	Market Cap (\$mm)	Enterprise Value (\$mm)	Enterprise Value to:			P/E
TICKEI		FILE	Week High	(\$1111)		LTM Revenue	LTM EBITDA	NTM EBITDA	F/C
Specialt	y Chemicals								
ALB	Albemarle Corporation	127.89	88.2%	14,131.3	15,016.2	5.2x	17.7x	15.8x	45.7x
ECL	Ecolab Inc.	134.18	97.3%	38,766.5	46,191.8	3.4x	15.9x	14.8x	30.3x
FOE	Ferro Corporation	23.59	92.5%	1,978.2	2,628.5	2.0x	14.4x	9.8x	45.9x
FUL	H.B. Fuller Company	53.87	91.7%	2,711.4	3,405.7	1.5x	12.6x	7.6x	26.4x
IFF	International Flavors & Fragrances Inc.	152.61	97.4%	12,052.7	13,415.8	4.1x	19.2x	16.3x	29.2x
MTX	Minerals Technologies Inc.	68.85	82.1%	2,435.0	3,249.4	2.0x	9.2x	9.0x	15.7x
POL	PolyOne Corporation	43.50	93.0%	3,515.0	4,634.3	1.3x	11.3x	10.8x	20.8x
KWR	Quaker Chemical Corporation	150.79	90.9%	2,005.4	1,981.3	2.5x	18.0x	8.6x	42.4x
SCL	Stepan Company	78.97	84.9%	1,778.6	1,820.3	1.0x	8.7x	7.5x	20.5x
					Mean	2.5x	14.1x	11.1x	30.8x
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APD	Air Products and Chemicals, Inc.	164.08	99.6%	35,903.5	36,310.8	4.4x	13.7x	12.0x	31.8x
PX	Praxair, Inc.	154.68	98.9%	44,285.7	53,401.7	4.8x	14.6x	13.6x	27.5x
					Mean	4.6x	14.1x	12.8x	29.7x



Ticker	Company Name	Stock Price	% of 52 Week High	Market Cap (\$mm)	Enterprise Value (\$mm)	Enterprise Value to:			P/E	
						LTM Revenue	LTM EBITDA	NTM EBITDA		
Paper and Corrugated Packaging										
GPK	Graphic Packaging Holding Company	15.45	97.5%	4,785.1	7,042.7	1.6x	10.3x	8.4x	30.4x	
GEF	Greif, Inc.	60.58	92.3%	3,091.3	4,036.9	1.1x	8.8x	8.1x	24.4x	
IP	International Paper Company	57.94	98.3%	23,925.1	35,277.1	1.6x	10.0x	8.0x	26.7x	
PKG	Packaging Corporation of America	120.55	99.3%	11,290.4	13,553.3	2.2x	10.6x	9.8x	22.3x	
SON	Sonoco Products Company	53.14	95.3%	5,282.2	6,486.8	1.3x	10.6x	9.2x	19.6x	
WRK	WestRock Company	63.21	97.4%	15,915.7	22,220.7	1.5x	9.7x	7.8x	22.8x	
					Mean	1.5x	10.0x	8.5x	24.4x	

Plastics	Plastics/Films <sup>[4]</sup>									
SHLM	A. Schulman, Inc.	37.25	93.5%	1,089.1	2,083.3	0.8x	10.6x	9.3x	43.3x	
ATR	AptarGroup, Inc.	86.28	95.0%	5,374.7	5,874.1	2.5x	12.7x	11.7x	25.3x	
NYSE: BERY	Berry Global Group, Inc.	58.67	95.6%	7,685.8	13,050.8	1.8x	10.2x	9.1x	22.9x	
ITP	Intertape Polymer Group Inc.	17.14	84.3%	1,007.6	1,314.7	1.5x	11.2x	9.3x	15.9x	
MYE	Myers Industries, Inc.	19.50	86.1%	593.5	747.0	1.3x	13.3x	10.9x	81.9x	
LSE: RPC	RPC Group Plc	11.91	80.8%	4,861.8	6,348.0	1.4x	10.0x	7.6x	17.8x	
TG	Tredegar Corporation	19.20	76.3%	630.4	775.6	0.8x	9.1x	NM	10.9x	
					Mean	1.5x	11.0x	9.7x	22.7x	

[4] MYE is excluded from the mean calculation of P/E multiple

Ticker	Company Name	Stock Price	% of 52 Week High	Market Cap (\$mm)	Enterprise Value (\$mm)	Enterprise Value to:			P/E	
						LTM Revenue	LTM EBITDA	NTM EBITDA		
Flexible	Flexible Packaging									
BMS	Bemis Company, Inc.	47.79	91.9%	4,339.6	5,846.4	1.5x	10.5x	10.0x	22.7x	
CCL.B	CCL Industries Inc.	46.31	81.4%	8,121.9	9,682.0	2.7x	13.9x	11.8x	25.7x	
LABL	Multi-Color Corporation	74.85	84.8%	1,530.0	1,992.9	2.1x	12.5x	6.9x	22.0x	
SEE	Sealed Air Corporation	49.30	97.4%	8,893.0	10,893.7	1.6x	10.6x	12.3x	25.3x	
WPK	Winpak Ltd.	37.32	76.2%	2,425.7	2,187.4	2.5x	11.1x	11.3x	22.5x	
					Mean	2.1x	11.7x	10.4x	23.6x	
OVERALL INDUSTRIAL GROWTH SECTOR					Mean	2.3x	12.7x	10.7x	28.1x	





### **Notes**

- Sources: Capital IQ, Bloomberg, Federal Reserve, Institute for Supply Management, company 10-K, 10-Q and 8-K SEC filings, annual reports, press releases, and others as indicated.
- Any public companies chosen for the "SCA Industrial Growth Universe" are companies commonly used for industry information to show performance within a sector. They do not include all public companies that could be categorized within the sector and were not created as benchmarks; they do not imply benchmarking and do not constitute recommendations for a particular security and/or sector. The charts and graphs used in this report have been compiled by SOLIC Capital Advisors solely for purposes of illustration.

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