



# INDUSTRIAL GROWTH

*Quarterly Update*

*Third Quarter 2017*



**SOLICONNECT**

*Realizing Value ... Delivering Results*

CAPITAL PLACEMENTS • MERGERS, ACQUISITIONS & DIVESTITURES • RESTRUCTURINGS

# Table Of Contents

## Market Overview

page **6**

## Notable Industry Developments

page **10**

## Selected M&A Transactions By Sector

page **12**

## Valuation Metrics By Sector

page **16**

## Notes

page **22**



# Q3 2017 Highlights

## November 2017

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

We are pleased to share with you SCA's *SOLICConnect* 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 third 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 Precision Machine Products subsector led the industry with a quarterly return of +10.5%, compared with the S&P 500 quarterly return of +3.7%. Other industry subsectors with notable positive quarterly growth include Resource Recovery & Waste Management +5.3%, Analytical Instrumentation & Testing Equipment +5.1%, and Chemicals +5.1%. M&A activity for the quarter contracted compared to Q2 2017 with 205 transactions announced versus 220 deals last quarter; deal value increased substantially to \$42.9 billion compared to \$24.6 billion last quarter, highlighted by Emerson Electric's unsolicited proposed offer for Rockwell Automation for \$30.9 billion. Other notable transactions this quarter included ABB Ltd's acquisition of GE Industrial Systems for \$2.6 billion in the Precision Machine Products sector, H.B. Fuller Company's agreement to acquire Royal Adhesives & Sealants in the Chemicals sector for \$1.5 billion, and Kuraray Co. Ltd.'s acquisition of Calgon Carbon Corporation for \$1.2 billion in the Chemicals sector.

Economic metrics continue to reflect growth and momentum as the ISM Manufacturing Index for November was 58.2, with a reading above 50.0 reflecting a positive outlook among major U.S. manufacturers. Related indices for the month also showed strength as the New Orders index rose from 63.4 to 64.0 and the Production index climbed from 61.0 to 63.9. While each of these readings are based upon industry surveys, they do reflect a value in line with a solid outlook for the U.S. industrial sector. Further, unemployment for November remained low at 4.1% and new nonfarm payrolls grew by 228,000 jobs, compared with analyst consensus of 200,000 positions. With these key indices serving as potential for future growth, a key element to driving economic expansion remains capital spending, which has been lacking in recent quarters. Real investment in equipment rose an annualized 10.4% in Q3 2017 or, as measured as a percentage of revenues, capital spending rose to nearly 5% this quarter after reaching a near all-time low of 4.25% in early 2016. Predictably, nearly 30% of this spending is linked to commodity-centric sectors, such as energy, which experiences cyclical demand. However, this emerging trend in investment spending will be essential for sustained growth of not only the domestic economy, but also international markets. We expect normalizing interest rates and aging infrastructure coupled with an improving economy and the potential for enhanced corporate tax policies in the U.S. to be key drivers for industrial demand and enhanced capital spending over the next 12-18 months.

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

**Matt Caine**  
Managing Director  
mcaine@soliccapi.com

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



 *Recent Representative Engagements \**

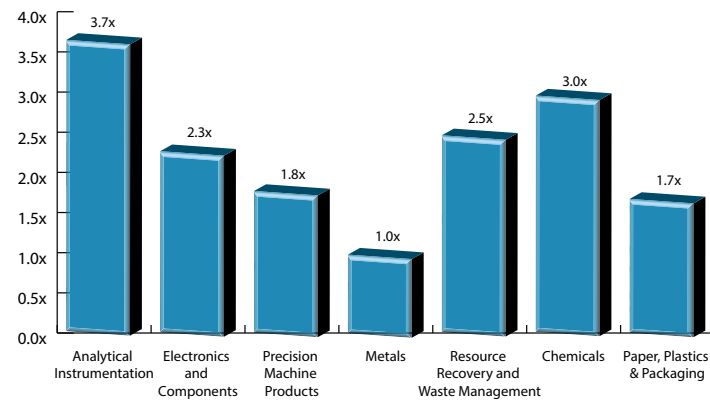
<b>HEALTHCARE</b>	<p><b>MESA</b> Medical Group has been acquired by <b>TEAMHealth</b> TeamHealth Holdings (NYSE: THO) Sell Side Advisor</p>	<p>\$156,000,000 <b>SUMNER</b> Regional Health Systems, Inc. Financial Advisor, Chief Executive Officer, Chief Restructuring Officer</p>	<p>\$690,600,000 Sale of Assets on behalf of <b>MedCath</b> MedCath Corporation (Nasdaq: MDTH) Sell Side Advisor</p>	<p>\$327,500,000 Capital Restructuring <b>THE FOUNTAINS</b> Founders Senior Lamp Holdings, LLC. Exclusive Financial Advisor</p>
<b>FINANCIAL SERVICES</b>	<p>\$100,000,000 Capital Placement <b>GREENBANK</b> Placement Agent and Financial Advisor</p>	<p>\$750,000,000 Assets under Management <b>SageCrest II, LLC</b> Fiduciary Oversight</p>	<p>\$4,500,000,000 of Assets <b>SENTINEL</b> Financial Advisor to Bankruptcy Trustee Chapter 11 Reorganization</p>	<p>\$5,000,000,000 Pre-Filing Secured Indebtedness <b>TB&amp;W</b> Financial Advisor and Chief Restructuring Officer</p>
<b>REAL ESTATE AND INFRASTRUCTURE</b>	<p>\$118,000,000 Sale of senior notes secured by property located at 610 Lexington Avenue New York <b>610 LEX</b> Financial Advisor</p>	<p>\$212,320,000 Debt Restructuring <b>SentCat Companies</b> The Westland Project Albuquerque, New Mexico Financial Advisor</p>	<p>\$87,000,000 Debt Restructuring for the Illinois Tollway Oasis Project <b>WILTON PARTNERS</b> REAL ESTATE DEVELOPMENT Financial Advisor</p>	<p>\$500,000,000 Senior &amp; Mezzanine Debt Restructuring related to 19 Master Planned Communities <b>D E Shaw &amp; Co</b> Financial Advisor</p>
<b>ENERGY</b>	<p>Pre Restructuring Invested Capital of Over \$800,000,000 <b>BOSQUE POWER COMPANY</b> Financial and Restructuring Advisor in Connection with Chapter 11 Bankruptcy</p>	<p>\$240,600,000 Restructured Debt <b>VAREL INTERNATIONAL</b> Restructuring Advisor</p>	<p><b>Alexin, LLC</b> has consummated an Institutional Private Placement of Series A Senior Preferred Units \$13,100,000 with Term Loan and Revolving Credit Facilities \$38,900,000 Financial Advisor</p>	<p><b>PTC</b> Pasadena Tank Corporation has merged with <b>HMT, Inc.</b> a company sponsored by Berkshire Partners LLC Financial Advisor to Pasadena Tank Corporation</p>
<b>INDUSTRIAL AND OUTSOURCING SERVICES</b>	<p><b>Project Time &amp; Cost Inc.</b> has made a strategic investment in <b>Project Time &amp; Cost Inc.</b> Financial Advisor to Project Time &amp; Cost Inc.</p>	<p><b>Tensar Corporation</b> has completed a capital restructuring of \$280,000,000 of senior debt and \$100,000,000 of subordinated debt Financial Advisor</p>	<p><b>Operational Restructuring</b> <b>InvivoCell Laboratories, Inc.</b> Financial Advisor and Exclusive Sell Side Financial Advisor</p>	<p>\$289,800,000 Capital Restructuring in connection with a consensual Plan of Reorganization <b>jiffylube</b> Financial Advisor to Unsecured Creditors Committee</p>

*Page Left Intentionally Blank*

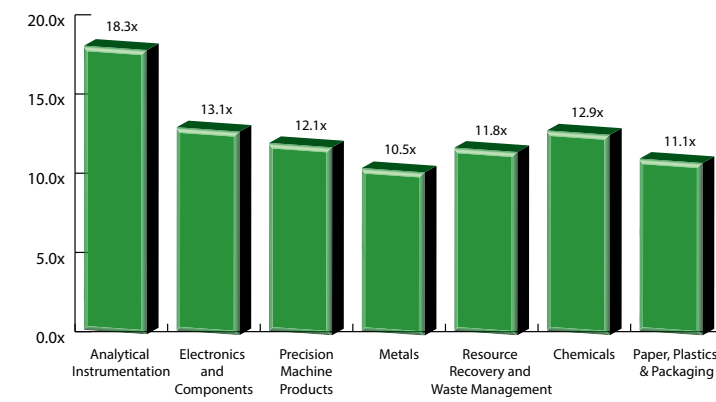
\* Includes transactions led by the team of SOLIC professionals at predecessor firms

# Market Overview

## Enterprise Value To Revenue



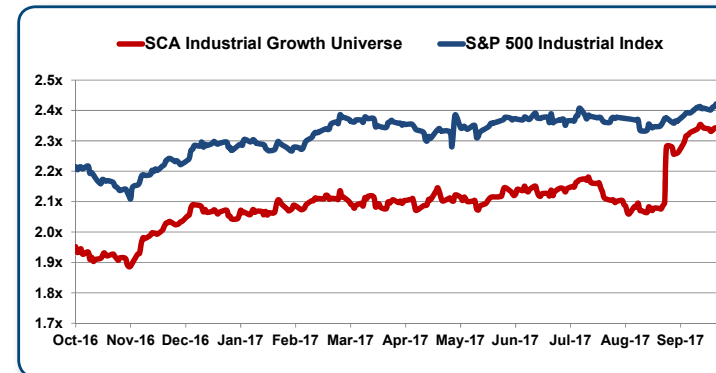
## Enterprise Value To EBITDA



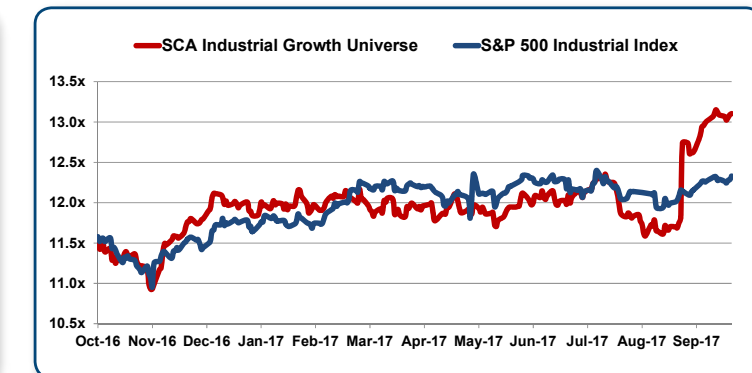
**Revenue and EBITDA valuation multiples continued to strengthen, despite a reduction in deal volume in Q3 2017 compared to Q2 2017.**



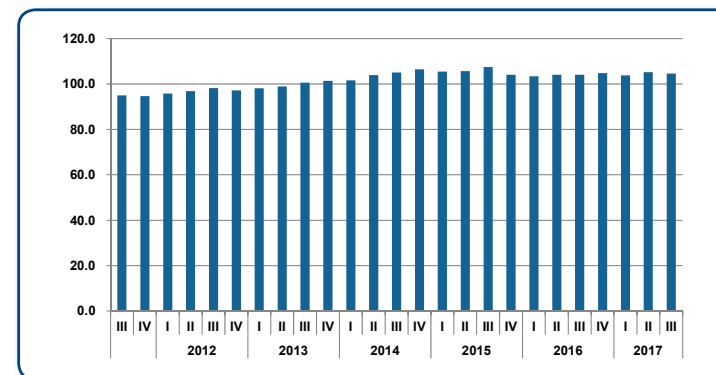
## SCA Industrial Growth Universe vs. S&P 500 Total Enterprise Value / Revenue



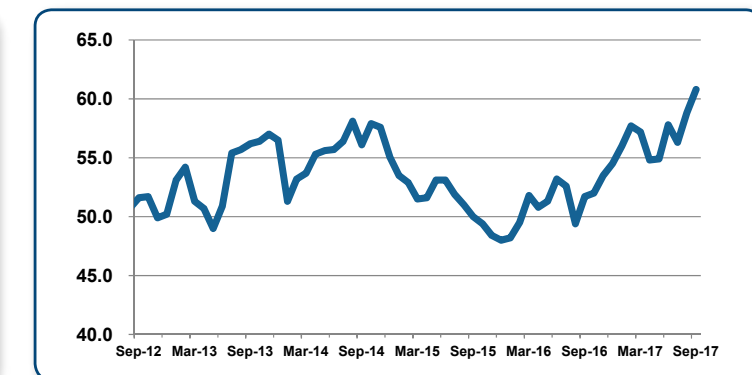
## SCA Industrial Growth Universe vs. S&P 500 Total Enterprise Value / EBITDA



## Federal Reserve Industrial Production



## Institute for Supply Management Purchasing Managers' Index

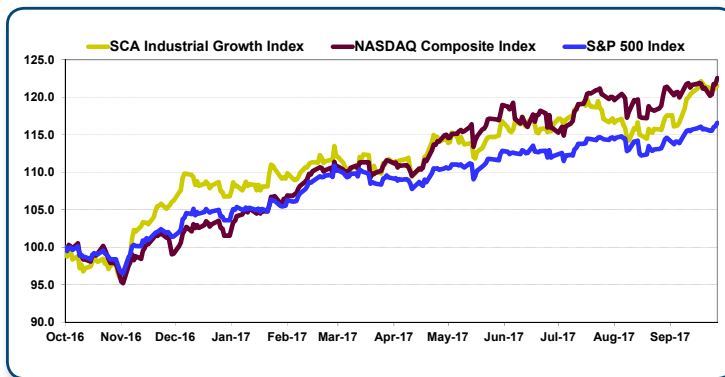


\* Please see pages 16-21 for SCA Industrial Growth Universe and additional information in the "Notes" section at the end of this report.

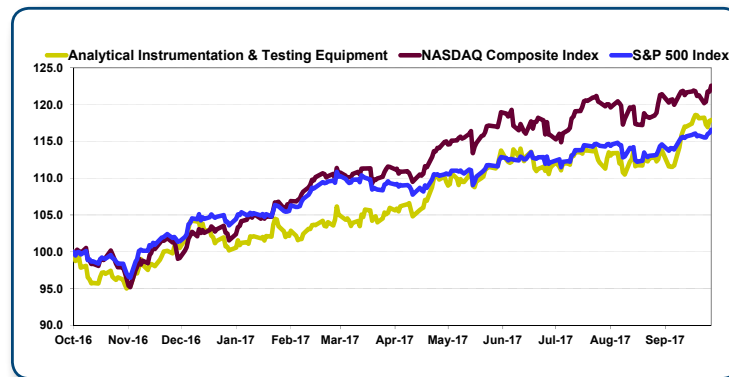
# Sector Stock Performance (one year)



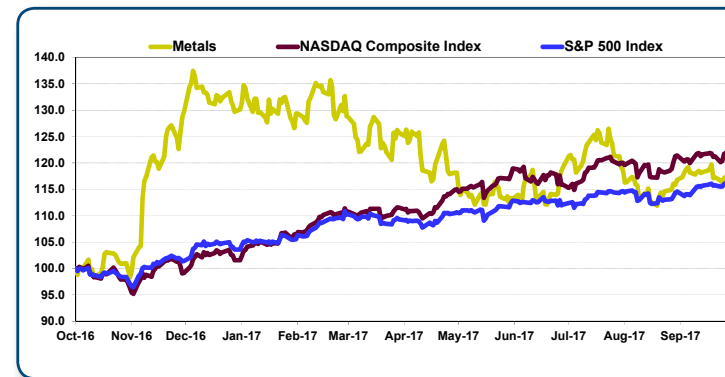
SCA Industrial Growth Index



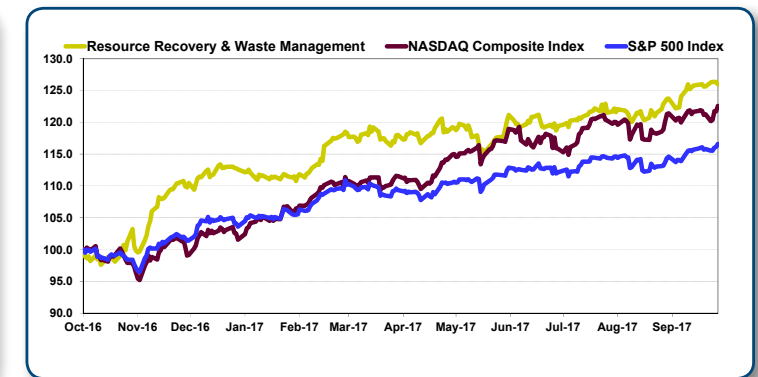
SCA Analytical Instrumentation & Testing Equipment Sector



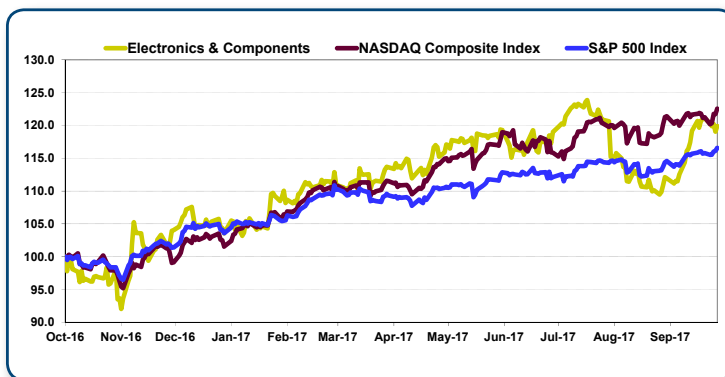
SCA Metals Sector



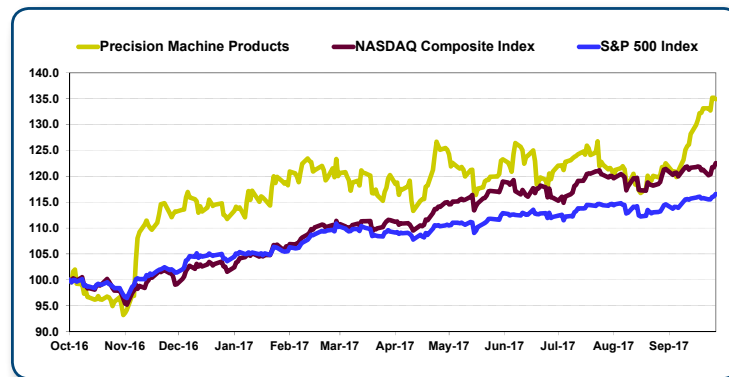
SCA Resource Recovery & Waste Management Sector



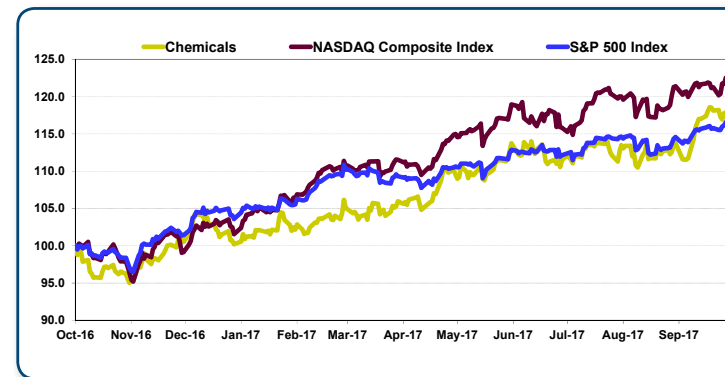
SCA Electronics and Components Sector



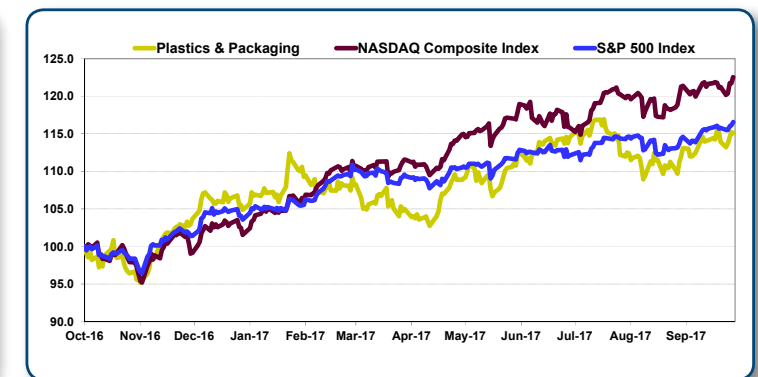
SCA Precision Machine Products Sector



SCA Chemicals Sector



SCA Plastics & Packaging Sector



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



# Notable Industry Developments



### Crude Oil Prices Rebound from Refinery Interruptions

WTI crude oil prices increased by 12.2% to \$51.67 per barrel during the third quarter. Temporary refinery shut downs in the Gulf Coast region following Hurricane Harvey contributed to WTI price increases in the beginning of September. Gross inputs to Gulf Coast refineries fell 3.2 million barrels/day, -34% compared to the week before Harvey's landfall. Continued agreed upon planned production cuts from OPEC nations and uncertainty in Venezuela contributed to global oil inventory declines. U.S. production growth in the Texas Permian basin is expected to continue through the second half of 2017 due to its stacked tight plays and low production cost, making it marginally profitable at average prices of \$50 per barrel. The Baker Hughes rig count reported a decrease of 6 oil rigs and increase of 5 gas rigs in the third quarter, signifying a flat pricing forecast by U.S. upstream oil and gas producers in response to OPEC's production cuts.

### GDP Growth of 3% Crushes Estimates

Third quarter's GDP growth surged at a +3.0% annualized rate following a revised GDP growth of +3.1% last quarter. Q3 GDP's resilient growth, despite devastating hurricanes in Texas and Florida, exceeded analyst predictions of +2.5%. Q3 growth was propelled by a strong increase in consumer spending of +2.4%, compounded by a +3.3% rise last quarter. Labor markets remain strong with near full employment and unemployment at a 16-year low of 4.2%. Business investment in equipment continued its robust growth with an increase of +8.6%, following an increase of +8.2% last quarter. This quarter's growth benefited from a contraction in the net trade deficit, a 9-month consecutive trend. Q4 GDP performance will be highly reliant on the much anticipated tax reform and continued net import reduction. The Federal Reserve agreed to leave interest rates alone in November and has hinted at a potential interest rate hike in December.

### SCA Industrial Growth Index Continues Its Robust Growth

Quarterly returns for the SCA Industrial Growth Sector continued to mount robust gains this quarter posting an average increase of +3.7% after a prior average increase of +4.7% in the second quarter of 2017. The Precision Machine Products sector posted the most substantial gains in the third quarter of +10.5% after reporting modest gains last quarter. Trailing twelve months ("TTM") returns for the SCA Industrial Growth Sector continued to soar +21.5% fueled by all the subsectors reporting solid gains during the TTM period, notably the Precision Machine Products and Resource Recovery & Waste Management sectors reported significant gains of +34.9% and +26.0%, respectively. The average TTM performance recorded over this same period by the broader market indices, S&P 500 and NASDAQ, were +16.6% and +22.6%, respectively.

## Third Quarter 2017

### Manufacturing Activity Growth Expands

Manufacturing growth expanded in the third quarter, following a strong recovery in June. A pickup in new orders and exports combined with increased raw material prices surmises that manufacturing is continuing to surge. According to the Institute for Supply Management, the September Purchasing Managers' Index ("PMI") registered 60.8%, an increase of 2.0 percentage points from August's PMI reading of 58.8%. Despite a dip in July and April, the PMI has steadily increased since August 2016. 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 64.6%, an increase of 4.3 percentage points from August's reading of 60.3%. The Production Index registered 62.2%, an increase of 1.2 percentage points from August's reading of 61.0%. The Employment Index registered 60.3%, an increase of 0.4 percentage points from August's reading of 59.9%. The Prices Index registered 71.5%, an increase of 9.5 percentage points from August's reading of 62%, illustrating higher raw material prices as an effect of rebuilding damaged areas from Hurricanes Harvey and Irma. 17 of the 18 manufacturing industries reported overall growth with 14 of the 18 industries reporting an increase in new orders in September compared to last month.

### U.S. Chemical Production Contracts after Hurricane Harvey

The U.S. Chemical Production Regional Index (U.S. CPRI) declined sharply in September by -140 basis points following a stagnant performance in June, 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 experienced the worst monthly decline of -450 basis points because of production disruptions from Hurricane Harvey. U.S. national chemical production increased +120 basis points compared to September 2016, with the Southeast and West Coast regions both experiencing notable year-over-year growth amongst the seven U.S. regions of +180 basis points.

### 2017 World Steel Output Expands

According to the World Steel Association, global crude steel production increased by +5.6% during the first nine months of 2017 compared to the same period in 2016. World production totaled 1,266.9 million tonnes (Mt) during the first nine months of 2017 compared to 1,199.7 Mt during the same period in 2016. U.S. production increased by +8.6% to 6.7 Mt in September 2017 compared to September 2016, due to a vibrant economy and increases in business investments. The most recent Short-Range Outlook forecasts 2017 world steel demand will expand by +7.0% to 1,622.1 Mt. compared to 2016. Developed nations continue to exhibit strong economic growth, including rising business confidence in the U.S., a broadening economic recovery in the EU, and government economic stimulus development in Japan in anticipation of the Olympics. Developed economies are expected to capitalize on these favorable developments with 2017 expected steel demand to expand by 2.3% compared to 2016.

## Upcoming Industry Conferences

Analytical Instrumentation and Testing Equipment	
14th Laboratory Informatics Summit December 4-6, 2017 Philadelphia, PA	PITTCON 2018 February 26 - March 1, 2018 Orlando, FL
Electronics and Components	
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 Products, Toolings, and Stampings	
Additive Manufacturing & 3D Printing Americas Conference 2017 December 6-8, 2017 Pasadena, CA	Metal Stamping, Tool, & Die Conference January 30-31, 2018 Nashville, TN
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 Waste Management	
Water & Wastewater Equipment, Treatment, & Transfer Show February 21-24, 2018 Indianapolis, IN	Waste Management Conference March 18-22, 2018 Phoenix, AZ
Chemicals	
2018 GlobalChem Conference & Exhibition February 28 - March 2, 2018 Washington, D.C.	2018 American Chemistry Council's Annual Meeting June 4-6, 2018 Colorado Springs, CO
Plastics and Packaging	
11th Annual Packaging Conference February 5-7, 2018 Orlando, FL	NPE2018: The Plastics Show Conference May 7-11, 2018 Orlando, FL



# Selected M&A Transactions



Date	Target	Buyer	Enterprise Value (\$ mm)	Enterprise Value / Revenue	Enterprise Value / EBITDA
09/28/17	<b>SGL GE Carbon Holding LLC</b>	<b>Tokai Carbon Co., Ltd.</b>	\$146.5	1.8x	n/a
Description:	Tokai Carbon agreed to acquire SGL GE Carbon Holding, a manufacturer of graphite electrodes, from Showa Denko for enterprise value of \$150 million.				
09/25/17	<b>GE Industrial Systems</b>	<b>ABB Ltd.</b>	\$2,600.0	1.0x	n/a
Description:	ABB Ltd. agreed to acquire GE Industrial Systems, a producer of electrical power and protection equipment, from General Electric Company for \$2.6 billion.				
09/25/17	<b>Colfax Corporation - Fluid Handling Business</b>	<b>CIRCOR International, Inc.</b>	\$860.3	1.9x	12.5x
Description:	CIRCOR International signed a definitive agreement to acquire the fluid handling business of Colfax Corporation for approximately \$860 million.				
09/21/17	<b>Calgon Carbon Corporation</b>	<b>Kuraray Holdings U.S.A., Inc.</b>	\$1,326.2	2.4x	16.4x
Description:	Kuraray Holdings entered into a definitive merger agreement to acquire Calgon Carbon Corporation, a provider of water and air filtration products, from The Vanguard Group and other institutional investors for \$1.1 billion.				
09/06/17	<b>Blue River Technology Inc.</b>	<b>Deere &amp; Company</b>	\$305.0	n/a	n/a
Description:	Deere & Company acquired Blue River Technology, a developer of computer and robotics technology for agricultural applications, from Pontifax for approximately \$310 million.				
09/04/17	<b>Royal Adhesives &amp; Sealants, LLC</b>	<b>H.B. Fuller Company</b>	\$1,575.0	n/a	n/a
Description:	H.B. Fuller Company signed an agreement to acquire Royal Adhesives & Sealants, a producer of adhesives, sealants, and polymer coatings, from American Securities for \$1.6 billion.				
08/30/17	<b>Microscan Systems, Inc.</b>	<b>OMRON Corporation</b>	\$157.0	n/a	n/a
Description:	OMRON Corporation signed an agreement to acquire Microscan Systems, a manufacturer of precision traceability and inspection solutions, from Spectris for approximately \$160 million.				

Date	Target	Buyer	Enterprise Value (\$ mm)	Enterprise Value / Revenue	Enterprise Value / EBITDA
08/24/17	<b>R. H. Sheppard Co., Inc.</b>	<b>WABCO Holdings Inc.</b>	\$145.0	1.1x	n/a
Description:	WABCO Holdings signed an agreement to acquire R. H. Sheppard, a provider of various automotive products and components, for approximately \$150 million.				
08/22/17	<b>Georgia-Pacific Chemicals LLC - Pine Chemicals Business</b>	<b>Ingevity Arkansas, LLC</b>	\$315.0	n/a	n/a
Description:	Ingevity Arkansas entered into an asset purchase agreement to acquire the pine chemicals business, consisting of pine-based tall oil fatty acids, tall oil rosin, and tall oil rosin esters production, from Georgia-Pacific Chemicals for approximately \$320 million.				
08/21/17	<b>Sacramento Container Corporation and Northern Sheets, LLC and Central California Sheets, LLC</b>	<b>Packaging Corporation of America</b>	\$265.0	n/a	5.0x
Description:	Packaging Corporation of America entered into a definitive agreement to acquire substantially all of the assets of Sacramento Container Corporation, a manufacturer of corrugated containers for food and beverage industries, from Joseph LeRoy for approximately \$270 million.				
08/18/17	<b>Aeroantenna Technology, Inc.</b>	<b>Electronic Technologies Group, Inc.</b>	\$336.5	n/a	n/a
Description:	Electronic Technologies entered into a stock purchase agreement to acquire Aeroantenna Technology, a manufacturer of GPS survey, marine, and airborne antennas, for approximately \$340 million.				
08/14/17	<b>Calumet Superior, LLC</b>	<b>Husky Energy Inc.</b>	\$435.0	n/a	n/a
Description:	Husky Energy agreed to acquire Calumet Superior, a producer of specialty lubricants and oil products, from Calumet Lubricants for approximately \$440 million.				
08/08/17	<b>Supreme Industries, Inc.</b>	<b>Wabash National Corporation</b>	\$338.4	1.1x	13.2x
Description:	Wabash National Corporation entered into a definitive agreement to acquire Supreme Industries, a producer of specialized commercial vehicles and fiberglass products, for approximately \$360 million.				

Date	Target	Buyer	Enterprise Value (\$ mm)	Enterprise Value / Revenue	Enterprise Value / EBITDA
08/02/17	<b>Rockwell Automation Inc.</b>	<b>Emerson Electric Co.</b>	<b>\$28,343.4</b>	<b>4.6x</b>	<b>23.2x</b>
Description:	Emerson Electric made an unsolicited proposal to acquire Rockwell Automation, a provider of industrial automation and information solutions, for \$26 billion.				
08/02/17	<b>Tronox Alkali Corporation</b>	<b>Genesis Energy, LP</b>	<b>\$1,325.0</b>	<b>1.7x</b>	<b>n/a</b>
Description:	Genesis Energy signed a definitive agreement to acquire Tronox Alkali Corporation, a producer of natural soda ash, from Tronox for \$1.3 billion.				
07/27/17	<b>Industrial Scientific Corporation</b>	<b>Fortive Corporation</b>	<b>\$600.0</b>	<b>3.8x</b>	<b>n/a</b>
Description:	Fortive Corporation entered into a definitive agreement to acquire Industrial Scientific Corporation, a manufacturer of gas detection products and accessories, from the McElhattan family for \$600 million.				
07/10/17	<b>NN, Inc. - Global Precision Bearing Components Business</b>	<b>Tsubaki Nakashima Co., Ltd.</b>	<b>\$387.6</b>	<b>1.6x</b>	<b>11.1x</b>
Description:	Tsubaki Nakashima agreed to acquire the Global Precision Bearing Components Business, a manufacturer of precision balls and stamped metals, from NN Inc. for approximately \$380 million.				

*Page Left Intentionally Blank*



# Valuation 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	
<b>Analytical Instrumentation and Testing Equipment<sup>[1]</sup></b>									
AME	AMETEK, Inc.	\$66.04	99.0%	\$15,241.7	\$17,126.6	4.3x	16.5x	14.9x	29.0x
CGNX	Cognex Corporation	110.28	95.6%	9,547.2	9,136.5	15.6x	44.1x	30.7x	50.4x
ESIO	Electro Scientific Industries, Inc.	13.92	97.6%	461.3	406.5	2.2x	146.0x	11.7x	NM
ESE	ESCO Technologies Inc.	59.95	94.0%	1,548.7	1,765.2	2.8x	16.3x	11.6x	30.3x
HEI	HEICO Corporation	89.81	98.3%	6,895.2	7,492.1	5.1x	20.8x	18.6x	44.0x
MTD	Mettler-Toledo International Inc.	626.16	98.4%	16,072.3	16,895.4	6.5x	26.8x	23.1x	38.5x
MTSC	MTS Systems Corporation	53.45	90.6%	906.3	1,261.1	1.6x	11.1x	10.5x	40.9x
Mean						3.7x	18.3x	15.1x	38.8x

<b>Electronics and Components</b>									
BELF.B	Bel Fuse Inc.	31.20	92.9%	367.0	438.9	0.9x	9.5x	8.3x	22.1x
ETN	Eaton Corporation plc	76.79	94.1%	34,156.2	41,973.2	2.1x	13.1x	11.8x	17.6x
LFUS	Littelfuse, Inc.	195.88	98.3%	4,449.0	4,608.9	4.0x	16.6x	15.0x	30.8x
Mean						2.3x	13.1x	11.7x	23.5x

<b>Precision Machine Products, Tooling and Stampings</b>									
CW	Curtiss-Wright Corporation	104.54	97.1%	4,614.2	5,237.1	2.4x	12.6x	11.5x	23.5x
HDNG	Hardinge Inc.	15.27	97.6%	197.7	176.1	0.6x	10.7x	NM	70.2x
HURC	Hurco Companies, Inc.	41.60	99.2%	275.6	215.9	0.9x	10.8x	NM	24.5x
KMT	Kennametal Inc.	40.34	93.6%	3,265.6	3,806.2	1.8x	12.8x	10.5x	66.1x
ROLL	RBC Bearings Incorporated	125.15	98.0%	2,956.5	3,148.9	5.0x	20.8x	18.4x	40.2x
SHLO	Shiloh Industries, Inc.	10.40	62.3%	240.5	407.4	0.4x	5.7x	5.1x	34.1x
TKR	The Timken Company	48.55	93.8%	3,779.3	4,368.4	1.6x	11.3x	9.1x	24.1x
Mean						1.8x	12.1x	10.9x	40.4x

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	
<b>Metals Processors</b>									
ATI	Allegheny Technologies Incorporated	23.90	99.6%	2,602.2	4,492.6	1.4x	15.2x	10.3x	NM
CMC	Commercial Metals Company	19.03	77.2%	2,203.5	2,991.8	0.6x	9.8x	8.1x	28.8x
RS	Reliance Steel & Aluminum Co.	76.17	86.0%	5,553.1	7,506.8	0.8x	8.8x	8.2x	17.2x
TSX:RUS	Russel Metals Inc.	22.07	92.6%	1,363.5	1,570.3	0.7x	11.0x	8.6x	17.1x
SCHN	Schnitzer Steel Industries, Inc.	28.15	92.0%	741.0	914.8	0.6x	9.7x	7.7x	18.1x
ASX:SGM	Sims Metal Management Limited	10.58	82.4%	2,124.6	1,824.5	0.5x	8.6x	6.4x	13.3x
WOR	Worthington Industries, Inc.	46.00	73.7%	2,858.6	3,567.9	1.1x	9.1x	10.0x	16.2x
Mean						0.8x	10.3x	8.5x	18.4x

<b>Tube and Pipe Producers<sup>[2]</sup></b>									
AKS	AK Steel Holding Corporation	5.59	49.1%	1,760.0	3,665.8	0.6x	5.1x	6.8x	14.6x
NWPX	Northwest Pipe Company	19.02	97.3%	183.0	166.2	1.2x	NM	19.1x	NM
SSAB A	SSAB AB	4.81	88.4%	4,340.7	6,572.7	0.9x	8.4x	6.2x	17.8x
STLD	Steel Dynamics, Inc.	34.47	85.8%	8,268.4	9,692.4	1.1x	7.1x	6.4x	15.8x
SYNL	Synalloy Corporation	12.50	90.9%	109.0	137.6	0.9x	18.7x	NM	NM
BIT:TEN	Tenaris S.A.	14.18	68.8%	16,743.2	15,972.4	3.5x	17.4x	13.8x	73.9x
X	United States Steel Corporation	25.66	61.3%	4,488.2	5,894.2	0.5x	7.0x	4.8x	162.2x
Mean						1.2x	10.6x	9.5x	30.5x

[1] CGNX is excluded from the mean calculations of Revenue, LTM EBITDA, and NTM EBITDA multiples; ESIO is excluded from the mean calculation of LTM EBITDA multiple.  
 [2] X 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	
<b>Resource Recovery and Waste Management</b>									
CWST	Casella Waste Systems, Inc.	18.80	98.3%	790.3	1,290.6	2.2x	11.4x	9.9x	NM
CECE	CECO Environmental Corp.	8.46	56.9%	293.1	386.0	1.0x	7.9x	8.3x	NM
CLH	Clean Harbors, Inc.	56.70	92.0%	3,240.6	4,528.6	1.6x	10.9x	9.6x	NM
HCCI	Heritage-Crystal Clean, Inc	21.75	99.1%	491.9	495.7	1.4x	12.0x	9.3x	28.4x
RSG	Republic Services, Inc.	66.06	98.3%	22,246.5	29,993.8	3.1x	11.1x	10.5x	33.9x
ECOL	US Ecology, Inc.	53.80	97.8%	1,174.3	1,449.1	3.0x	13.6x	11.2x	42.0x
WCN	Waste Connections, Inc.	69.96	98.9%	18,444.0	22,060.8	5.0x	16.1x	14.4x	59.5x
WM	Waste Management, Inc.	78.27	99.3%	34,441.6	43,487.6	3.1x	11.5x	10.6x	26.8x
Mean						2.5x	11.8x	10.5x	38.1x

<b>Diversified Chemicals<sup>[3]</sup></b>									
ASH	Ashland Global Holdings Inc.	65.39	51.0%	4,080.5	6,401.5	1.3x	8.8x	9.7x	NM
CBT	Cabot Corporation	55.80	91.0%	3,472.4	4,328.4	1.7x	8.7x	8.6x	15.7x
NYSE: DWDP	DowDuPont Inc.	69.23	97.9%	161,719.4	178,268.4	3.4x	18.1x	9.8x	29.6x
EMN	Eastman Chemical Company	90.49	99.5%	13,110.1	19,846.1	2.2x	9.2x	8.7x	14.5x
FMC	FMC Corporation	89.31	95.6%	11,979.0	13,665.4	4.1x	19.3x	18.7x	45.3x
OLN	Olin Corporation	34.25	98.3%	5,694.3	9,130.3	1.5x	10.8x	7.9x	133.4x
Mean						2.4x	12.5x	10.6x	26.3x

[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)	Enterprise Value to:			P/E
						LTM Revenue	LTM EBITDA	NTM EBITDA	
<b>Specialty Chemicals</b>									
ALB	Albemarle Corporation	136.31	99.1%	15,058.5	15,919.1	5.7x	19.6x	17.4x	51.2x
ECL	Ecolab Inc.	128.61	95.3%	37,217.3	44,705.5	3.3x	15.5x	14.4x	29.4x
FOE	Ferro Corporation	22.30	100.0%	1,866.4	2,456.4	2.0x	14.1x	10.0x	46.2x
FUL	H.B. Fuller Company	58.06	99.4%	2,922.3	3,616.6	1.6x	13.4x	11.6x	28.5x
IFF	International Flavors & Fragrances Inc.	142.91	98.0%	11,286.4	12,695.1	4.0x	18.9x	15.5x	28.8x
MTX	Minerals Technologies Inc.	70.65	84.3%	2,479.3	3,354.3	2.1x	9.6x	9.3x	16.1x
POL	PolyOne Corporation	40.03	97.9%	3,274.1	4,483.9	1.3x	10.7x	10.4x	18.9x
KWR	Quaker Chemical Corporation	147.95	95.8%	1,969.2	1,956.5	2.5x	17.8x	10.5x	37.6x
SCL	Stepan Company	83.66	90.0%	1,885.3	1,967.3	1.1x	9.5x	7.6x	21.8x
Mean						2.6x	14.3x	11.9x	30.9x

<b>Industrial Gases</b>									
APD	Air Products and Chemicals, Inc.	151.22	99.3%	32,959.5	33,625.5	3.4x	10.3x	11.3x	24.4x
PX	Praxair, Inc.	139.74	98.5%	39,974.7	49,269.7	4.5x	13.7x	13.2x	26.2x
Mean						3.9x	12.0x	12.3x	25.3x

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	
<b>Paper and Corrugated Packaging</b>									
GPX	Graphic Packaging Holding Company	13.95	98.4%	4,323.1	6,523.8	1.5x	9.4x	8.6x	25.9x
GEF	Greif, Inc.	58.54	92.9%	2,926.4	3,983.3	1.1x	8.7x	8.0x	29.8x
IP	International Paper Company	56.82	96.4%	23,461.8	33,656.8	1.5x	10.0x	8.2x	28.9x
PKG	Packaging Corporation of America	114.68	96.0%	10,734.3	13,048.1	2.1x	10.7x	9.6x	22.1x
SON	Sonoco Products Company	50.45	90.8%	5,014.5	6,138.7	1.3x	10.2x	9.1x	19.2x
WRK	WestRock Company	56.73	94.0%	14,236.6	20,594.6	1.4x	9.5x	7.5x	34.0x
Mean						1.5x	9.8x	8.5x	26.6x

<b>Plastics/Films<sup>[4]</sup></b>									
SHLM	A. Schulman, Inc.	34.15	90.6%	1,002.7	2,014.2	0.8x	9.7x	9.5x	NM
ATR	AptarGroup, Inc.	86.31	95.1%	5,413.7	5,855.7	2.5x	12.6x	12.1x	25.4x
NYSE: BERY	Berry Global Group, Inc.	56.65	96.1%	7,387.2	13,041.2	1.9x	10.7x	9.1x	24.1x
ITP	Intertape Polymer Group Inc.	14.56	70.7%	861.2	1,162.5	1.3x	10.7x	8.5x	16.1x
MYE	Myers Industries, Inc.	20.95	98.4%	633.9	799.3	1.5x	14.6x	12.2x	148.2x
LSE:RPC	RPC Group Plc	13.28	89.6%	5,471.0	6,928.3	1.9x	13.4x	8.7x	26.9x
TG	Tredegar Corporation	18.00	70.3%	591.0	754.3	0.9x	9.7x	NM	9.6x
Mean						1.5x	11.6x	10.0x	20.4x

[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	
<b>Flexible Packaging</b>									
BMS	Bemis Company, Inc.	45.57	87.7%	4,138.0	5,618.8	1.4x	9.9x	9.7x	20.6x
CCL.B	CCL Industries Inc.	48.31	84.7%	8,479.5	10,194.6	2.9x	15.1x	12.3x	28.1x
LABL	Multi-Color Corporation	81.95	92.9%	1,396.9	1,850.7	2.0x	11.7x	10.6x	23.6x
SEE	Sealed Air Corporation	42.72	84.4%	8,118.1	12,320.7	1.8x	11.6x	14.0x	21.8x
WPK	Winpak Ltd.	41.08	83.6%	2,669.9	2,433.6	2.7x	11.9x	11.8x	24.0x
Mean						2.1x	12.1x	11.7x	23.6x
<b>OVERALL INDUSTRIAL GROWTH SECTOR</b>					Mean	2.2x	12.4x	10.9x	28.6x



 **NOTES**

**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.

For further information regarding our Industrial Growth Services, please contact: Edward R. Casas, Senior Managing Director, [ecasas@soliccapiatal.com](mailto:ecasas@soliccapiatal.com)  
Matt Caine, Managing Director, [mcaine@soliccapiatal.com](mailto:mcaine@soliccapiatal.com)

To view all of quarterly industry reports or to make changes to your subscription(s), please go to [www.soliccapiatal.com/SOLICconnect](http://www.soliccapiatal.com/SOLICconnect)

SCA gathers its data from sources it considers reliable. However, it does not guarantee the accuracy or completeness of the information provided within this publication. Any opinions presented reflect the current judgment of the authors and are subject to change. SCA makes no warranties, expressed or implied, regarding the accuracy of this information or any opinions expressed by the authors. (Officers, directors and employees of SOLIC and its subsidiaries may have positions in the securities of the companies discussed.) This publication does not constitute a recommendation with respect to the securities of any company discussed herein, and it should not be construed as such. SCA or its affiliates may from time to time provide investment banking or related services to these companies. Like all SCA employees, the authors of this publication receive compensation that is affected by overall firm profitability.

©2017 SOLIC Capital Advisors, LLC. All rights reserved.  
Investment banking, private placement, merger, acquisition and divestiture services offered through SOLIC Capital, LLC. Member FINRA/SIPC. SOLIC Capital Management, LLC is a Registered Investment Adviser in the State of Illinois. SOLIC is not a certified public accounting firm and does not provide audit, attest, or public accounting services.

## About SOLIC

**LEADERSHIP TEAM**

**Edward R. Casas**  
Managing Partner  
and Senior Managing Director

**Neil F. Luria**  
Senior Managing Director

**Gregory F. Hagood**  
Senior Managing Director  
President of SOLIC Capital, LLC

**Robert E. Annas**  
Senior Managing Director

**Kim J. Brady**  
Senior Managing Director

**Matthew M. Caine**  
Managing Director

**George N. Koutsonicolis**  
Managing Director

**Raoul Nowitz**  
Managing Director

**Matthew E. Rubin**  
Managing Director

SOLIC Capital Advisors, LLC (“SCA”) is a leading specialty investment bank providing merger & acquisition, restructuring, capital placement and valuation advisory services to companies, lenders, institutional investors, the legal community and other creditor constituencies. SCA is a subsidiary of SOLIC Holdings, LLC which includes: SOLIC Capital Advisors (financial advisory), SOLIC Capital Partners (principal investing), SOLIC Capital, LLC (FINRA registered Broker/Dealer), and SOLIC Capital Management (asset management services).





**SOLICONNECT**

*Industrial Growth | Third Quarter 2017*

**SOLIC Capital | 1603 Orrington Avenue | Suite 1600 | Evanston, IL 60201 | (847) 583-1618 | [www.soliccapital.com](http://www.soliccapital.com)**

©2017 SOLIC Capital. All rights reserved. Investment banking, private placement, merger, acquisition and divestiture services offered through SOLIC Capital, LLC. Member FINRA/SIPC. SOLIC Capital Management, LLC is a Registered Investment Adviser in the State of Illinois. SOLIC is not a certified public accounting firm and does not provide audit, attest or public accounting services.