

EMS Quarterly Review Q1 2019





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#### Annoucements

Jan. 22, 2019: Compass Electronics Group has acquired Protech Global Solution

Feb. 15, 2019: Kitron Inc. has acquired API Defense USA from API Technologies Corporation

Mar. 4, 2019: Cerberus Capital Management has taken Sparton Corporation private

**Mar. 15, 2019:** VirTex Enterprises has acquired Circuit Technology



# Q1 2019 Year in Review

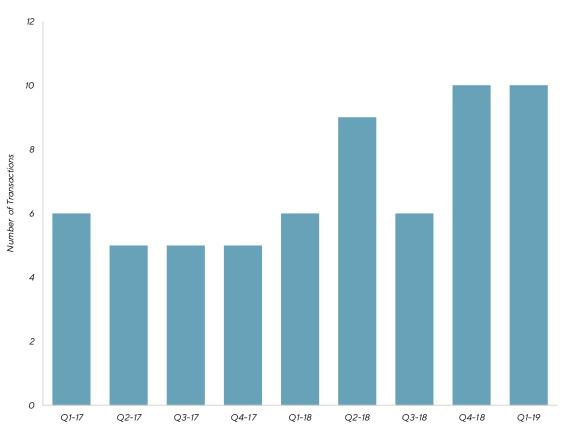
There were 10 EMS transactions recorded in Q1 2019, representing an increase from the 6 recorded in Q1 2018 and the same number as the transactions in Q4 2018. EMS consolidations accounted for 7 transactions in Q1 2019, or 70% of total activity, representing an increase in the number of EMS consolidations from Q4 2018.

Private equity investments accounted for two transactions, representing 20% of total activity and the same number as the previous quarter. In Q1 2019, there was one transaction categorized as Diversification into EMS in Q1 2019, the same as in Q4 2018. EMS divestitures did not account for any transactions in Q12019, nor were there any transactions categorized as Diversification into EMS or Vertical / Horizontal Convergence this quarter.

In terms of geography, 8 of the transactions completed in Q12018 occurred in the U.S. / Canada, representing 80% of total transaction activity in Q12019. The remaining 2 transactions in Q12019 took place in Europe.

In terms of transaction size, Small Tier EMS providers accounted for 90% of the Q1 2019 transaction volume with 9 acquisitions. Mid Tier EMS providers accounted for 1 acquisition given the Sparton transaction.

#### Quarter-over-Quarter Completed EMS Transactions





#### EMS Size Guide (Sales Dollars)

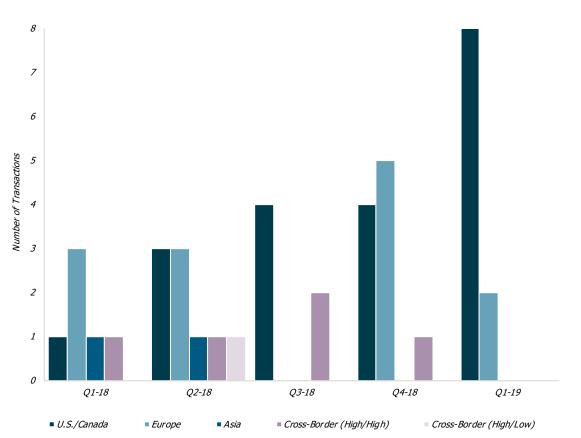
- Large (Tier I) Greater than \$3 billion
- Mid (Tier II) \$300 million to \$3 billion
- Small (Tier III) Below \$300 million

Sources: All information contained in this newsletter including the charts was obtained from company websites, Custer Reports, Lincoln International's internal data, Manufacturing Market Insider and Capital IQ.

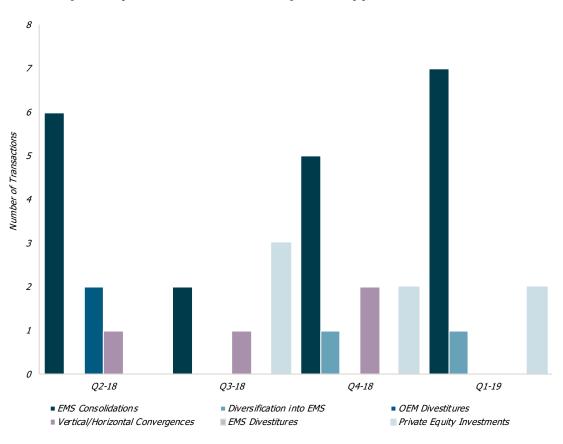
Note: Companies are included in a given tier by falling within the threshold for two consecutive quarters



#### Quarterly Comparison-EMS M&A by Geography



#### Quarterly Comparison-EMS M&A by Deal Type





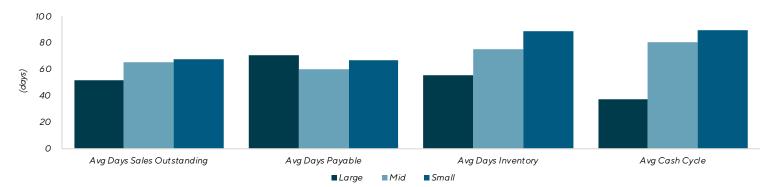
# **Terms & Turns - Revisiting the Cash Cycle**

The cash cycle is calculated by adding days sales outstanding (DSO) and days inventory outstanding (DIO) and subtracting from this sum days payable outstanding (DPO). The financial statistic is used to measure how quickly a company can turn sales into cash. There are two basic disciplines in managing cash cycle: 1) contractual terms with vendors and customers, and 2) inventory turns, hence "Terms & Turns." Because the electronic manufacturing services industry is very material intensive, inventory management is the most important factor in achieving cash cycle improvements.

In the Large Tier, all companies' cash cycles worsened (more days). Jabil lengthened its cash cycle by 29.1% to 13.1 days in Q1 2019 from 10.2 days in Q12018 largely due to higher DSO, offset partially by higher DPO. Celestica's cash cycle lengthened by 18.0% to 60.3 days, up from 51.1 days in Q12018, driven primarily by higher DSO and lower DPO. Likewise, Sanmina experienced a 3.1% lengthening in its cash cycle due to higher DSO and lower DPO. Flex's cash cycle lengthened by 4.3% to 24.4 days in Q1 2019 from 23.3 days in Q12018 as a result of higher DSO and DIO. In the Mid Tier, only Key Tronic improved its cash cycle, primarily due to higher DPO and lower DIO. All other companies, including Benchmark, Kimball and Plexus, experienced worsening cash cycles, largely driven by increased DSO among each.

In the Small Tier, all companies experienced worsening cash cycles. SMTC experienced the largest degradation in cash cycle, experiencing a 50.9% lengthening from 60.2 days in Q1 2018 to 90.9 days in Q1 2019, largely driven by a large increase in DSO and DIO, partially offset by higher DPO. IEC lengthened its cash cycle by 13.8% to 90.5 days in Q1 2019 from 79.5 days in Q1 2018 largely due to higher DSO.

Inventory turnover is the most important cash cycle factor, making up the majority of the cycle. For example, SigmaTron has one of the longest cash cycles (95.5 days), and also has one of the lowest inventory turns at 2.9. Conversely, three companies with shorter cash cycles, Jabil, Flex and Kimball (cycles of 13.1, 24.4 and 71.5 respectively), have higher inventory turns (6.6, 6.5 and 7.5, respectively). Inventory turns are also impacted by business type. Low volume, high mix manufacturing, for which inventory management is more difficult, generally leads to lower turns.



### Q1 2019 Cash Cycle

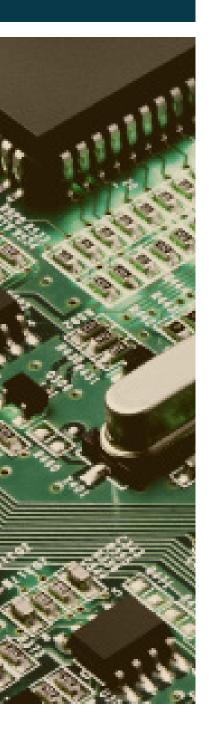
		Cash Cycle		Inventory Turns			
	Q1-18	Q1-19	% chg	Q1-18	Q1-19	% chg	
Large							
Celestica Inc.	51.1	60.3	18.0%	6.1	6.1	0.3%	
Flex Ltd.	23.3	24.4	4.3%	6.6	6.5	(1.3)%	
Jabil Inc.	10.2	13.1	29.1%	6.4	6.6	3.7%	
Sanmina Corporation	48.2	49.7	3.1%	6.0	7.0	17.2%	
Median	35.8	37.0	3.5%	6.2	6.6	5.3%	
Mid							
Benchmark Electronics, Inc.	64.9	70.4	8.5%	6.4	7.5	17.6%	
Key Tronic Corporation	93.9	81.9	(12.7)%	3.9	4.4	13.3%	
Kimball Electronics, Inc.	63.9	71.5	11.8%	5.7	5.3	(6.4)%	
Plexus Corp.	88.9	97.0	9.2%	3.7	3.7	(0.7)%	
Median	76.9	76.7	(0.2)%	4.8	4.8	1.6%	
Small							
IEC Electronics Corp.	79.5	90.5	13.8%	5.0	3.9	(21.8)%	
Nortech Systems Incorporated	77.5	80.3	3.6%	5.7	5.6	(0.7)%	
SigmaTron International, Inc.	87.4	95.5	9.3%	3.2	2.9	(10.6)%	
SMTC Corporation	60.2	90.9	50.9%	6.0	5.1	(13.7)%	
Median	78.5	90.7	15.5%	5.3	4.5	(15.1)%	

Note: Negative % change for cash cycle denotes improvement.



#### Current EMS Market Highlights

The Overall Lincoln EMS Stock Index increased 15.3% from last quarter primarily driven by an increase in the Large and Mid Index, which grew 15.8% and 14.2%, respectively. The Small Index increased again for a consecutive quarter by 6.5%.



# **EMS Stock Index Outperforms S&P**

#### About the EMS Stock Index

Similar to the S&P 500 Index, the EMS Stock Index is a market cap weighted composite index. The index is prepared by first selecting a base period, in this case, Q1 2003, and totaling the market caps of the companies for each tier in this period. This period and total market cap is set to a base index, in this case, 1,000. Next, for each tier, the current period's total market cap is calculated, divided by the base period's total market cap and then multiplied by the base index (1,000). The result is the index value used for plotting in the graph on the next page.

Winner's Circle		Tier
NYSE:JBL	1.3%	I
NasdaqGS:KE	0.4%	Ш
NasdaqNM:SMTX	99.9%	111

Worst Performers		Tier
NasdaqGS:FLEX	(44.4%)	I
NYSE:BHE	(15.1%)	II
NasdaqCM:SGMA	(71.2%)	

 EBITDA Margins

 Large Tier
 4.7%

 Mid Tier
 5.0%

 Small Tier
 3.9%

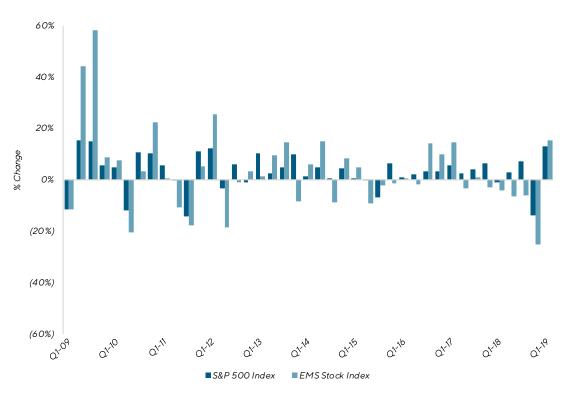
YOY LTM Revenue Growth					
Large Tier	9.7%				
Mid Tier	7.5%				
Small Tier	21.0%				

Note: Based on quarter-over-quarter share price performance

Source: Capital IQ as of March 31, 2019

Note: Average for each sector; YOY stands for year-over-year

## S&P Index vs. EMS Stock Index Quarter Change

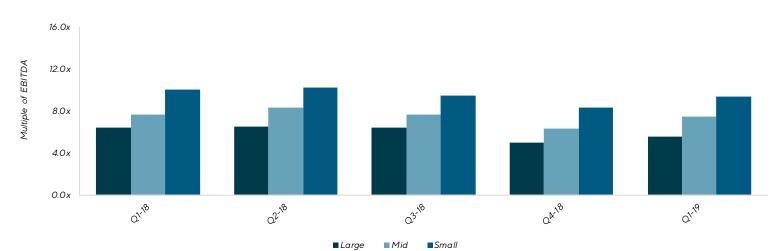




#### **EMS Stock Index by Size**



Note: See below for specific company classifications



### Enterprise Value<sup>(1)</sup> / EBITDA

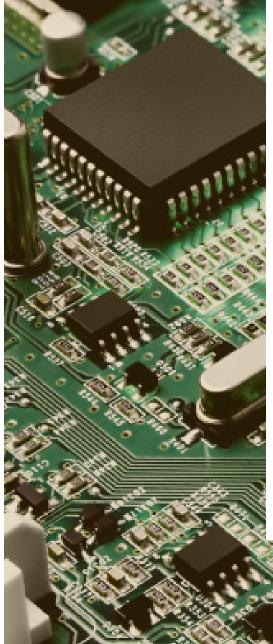
(1) Enterprise Value is calculated as market cap on March 31, 2019 plus debt, preferred equity and minority interest less cash Note: See below for specific company classifications

### EMS Stock Index Company Data

	Stock Price	LTM Sales (\$ in mm)	Diluted EPS	Avg. Cash Conversion Cycle (days)	Current Ratio	EV/EBITDA	EV / Sales	Market Cap (\$ in mm)	Net Debt (\$ in mm)
Large									
Celestica Inc.	\$8.45	\$6,633	\$0.70	59.6	1.74	5.8x	0.2x	\$1,155	\$340
Flex Ltd.	10.00	26,490	0.26	24.4	1.26	5.6x	0.3x	5,214	1,446
Jabil Inc.	26.59	23,782	1.05	13.1	1.02	4.2x	0.3x	4,114	1,909
Sanmina Corporation	28.85	7,553	1.40	52.3	1.27	6.8x	0.3x	1,974	313
Mid									
Benchmark Electronics, Inc.	\$26.25	\$2,566	\$0.49	69.7	2.61	6.4x	0.3x	\$1,067	\$(304)
Key Tronic Corporation	6.17	476	0.15	81.9	2.15	6.8x	0.2x	66	40
Kimball Electronics, Inc.	15.49	1,110	1.08	71.5	1.56	6.5x	0.4x	396	53
Plexus Corp.	60.95	3,052	4.42	97.0	1.83	10.2x	0.6x	1,884	96
Small									
IEC Electronics Corp.	\$6.85	\$131	\$1.15	90.5	1.60	NM	0.7x	\$70	\$28
Nortech Systems Incorporated	4.73	113	0.06	80.3	1.84	9.9x	0.2x	13	14
SigmaTron International, Inc.	2.91	285	(1.48)	95.5	2.10	8.8x	0.2x	12	50
SMTC Corporation	3.78	216	(0.02)	90.9	1.25	NM	0.8x	88	92

Sources: Bloomberg, Capital IQ and company filings, as of March 31, 2019





## Lincoln's Global Technology, Media & Telecom Group

#### **Connected to Clients' Ambitions**

Encompassing both physical assets and intellectual property, the TMT industry has expansive opportunities for investors and entrepreneurs. Our global network of professionals, our strong relationships with industry leaders and our deep expertise in a variety of TMT verticals combine to serve the unique needs of clients capitalizing on change within a sector that is highly integrated into nearly every service and product. Our connections, along with our track record of exceptional results, give us the edge to provide our clients with creative and innovative financial solutions.

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