

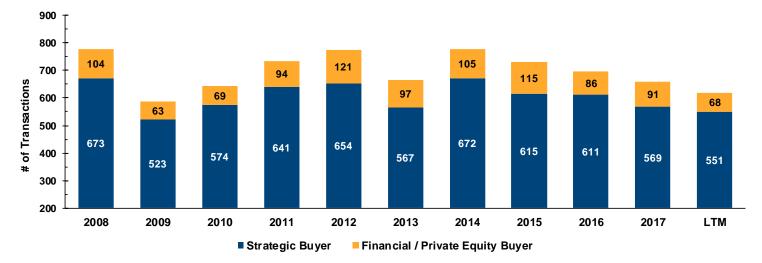
Current Environment Signaling an Increase in M&A Activity?

There is an interesting trend in recent merger and acquisition activity for industrial manufacturers. Based on the volume of transactions, it would appear that demand for acquisitions has declined since 2014. On the other hand, current market fundamentals indicate that an increase in M&A activity may be likely. During the past few years, the market faced uncertainty in several areas, including tax, trade, and regulatory changes. Until late 2017, many potential buyers slowed their pursuit of acquisitions, due to concerns about the economy, political and regulatory uncertainty, and market volatility. By 2018, many of these uncertainties have become clearer. The new Tax Cut and Jobs Act that went into effect at the beginning of 2018, among other things, appears to have allayed these concerns as well.

During the first half of 2018, M&A activity increased slightly compared to the previous two quarters. Corporations are using strategic M&A initiatives to obtain access to key technologies, expand their customer base in existing and new markets, increase and diversify their product offerings, and transform their businesses in an evolving digital environment. Industrial manufacturers are under immense pressure to innovate and reduce costs as the rapid pace of technological advancements and product penetration in emerging markets continue to raise the bar for the industry. For this reason, manufacturers have pursued digital transformation aggressively through acquisitions in efforts to improve process efficiency and empower innovation. Manufacturers also use acquisitions to meet ongoing challenges in hiring high-quality and skilled workers. Lastly, the 2018 U.S. tax reform is providing capital to fuel M&A activity with lower corporate tax rates and incentives to repatriate funds.

M&A patterns may also be discerned through the lens of megadeal transactions; that is, those with values in the billions of dollars. Three notable announced acquisitions of this magnitude include Tenneco Inc.'s declared intent to acquire Federal-Mogul for \$5.4 billion, Wabtec Corporation's stated \$11.1 billion acquisition of GE's transportation segment, and the planned acquisition of KLX, Inc. by Aviall (a Boeing company) for \$4.5 billion.

What impact might international trade conflicts and the upcoming mid-term elections have on M&A activity?



Industrial Manufacturing M&A Transactions by Year

Sources: CapIQ, News Releases.

INDUSTRIAL MANUFACTURING

Q1-Q2 | 2018

Notable Announced or Closed Transactions

Notable Announced or C	losea	Transactions					
Closed: 4/24/2018		Overview / Strategic Rationale:	Aerospace & Defense				
Target:		The acquisition of Extant Components Group Holdings, Inc. brings TransDigm Group Ex- tant's attractive aftermarket sales mix from proprietary and sole-sourced products.					
Acquirer: TRANSD	IGN	• Extant currently owns or exclusively licenses -assemblies on over 70 active aircraft platfo					
Key Metrics: Implied Enterprise Value (mm USD) EV/LTM EBITDA EV/LTM Revenue	\$525 N/A 6.2x	• The company offers TransDigm an attractive value proposition with its legacy aerospace and defense products, and an active pipeline of new product line ac- quisition opportunities.					
Announced: 4/10/2018		Overview / Strategic Rationale:	Automotive & Truck				
Target: FEDER MOGU		Tenneco Inc.'s transformational acquisition of Federal-Mogul and its planned realign- ment and separation into two publicly traded companies creates industry-leading busi- nesses in the automotive and truck industry.					
Acquirer: TENNE	CO	 The combination of Tenneco's Ride-Perform torparts segments creates one of the world original equipment suppliers. 	-				
Key Metrics: Implied Enterprise Value (mm USD) EV/LTM EBITDA EV/LTM Revenue	\$5,400 7.2x 0.7x	• The combination of Tenneco's Clean Air and ments creates one of the largest global pure					
Closed: 3/20/2018		Overview / Strategic Rationale:	Engineered Products				
Target: Acquirer: DURAV	ANT	Duravant's acquisition of Key Technology brings to ment leaders and significantly extends the firm's re try by providing it with new complementary produ leader in advanced automation systems, Key Tech to serve national and multi-national customers wi optical, and software-based solutions designed to o	each across the food processing indus- ucts and applications. As a worldwide nology augments Duravant's capacity th cutting-edge technical, mechanical				
Key Metrics: Implied Enterprise Value (mm USD)	\$177	 Key Technology's portfolio includes intellige sorting systems, vibratory conveying system 					
EV/LTM EBITDA EV/LTM Revenue	17.4x 1.2x	 Duravant inherits Key Technology's sterling achieved by the latter firm's focus on delive tomers. 	-				
Closed: 2/15/2018		Overview / Strategic Rationale:	Polymers & Chemicals				
Target: 1957-201 Fabricator Fabricator Acquirer: COMPA Diversified Hold		Foam Fabricators, Inc. represents a strategic acquings that brings with it a strong management tea free cash flow, and attractive growth prospects. The of-the-art molding and fabricating facilities for app North America and to such end markets as pharmamotive, and building products.	m, diversified customer base, steady nus, Compass gains access to 13 state- liances and electronics located across				
Key Metrics: Implied Enterprise Value (mm USD) EV/LTM EBITDA EV/LTM Revenue	\$248 8.2x 2.0x	 Foam Fabricators is a leading designer and tective foam solutions and original equipme Foam Fabricators represents the tenth acquindustry-leading companies in niche market pected to be immediately accretive to the companies in the second secon	ent manufacturer components. isition Compass had made involving s. This platform acquisition is ex-				

Sources: Company Filings, CapIQ, News Releases

pected to be immediately accretive to the cash flow of Compass.

INDUSTRIAL MANUFACTURING

Q1-Q2 | 2018

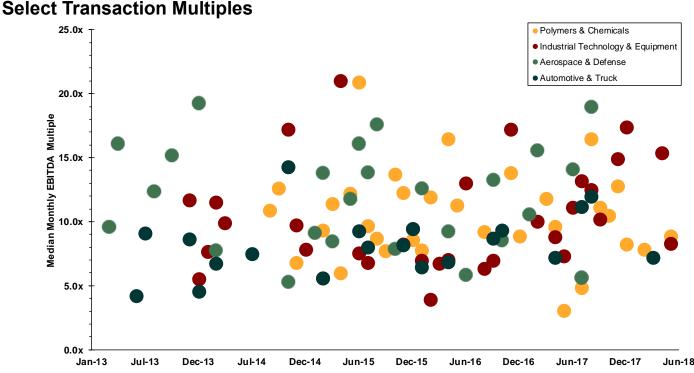
Select Announced Or Closed Transactions (Not intended to be all-inclusive)

Announced /	D			Price	EBITDA	Cross-	
Closed	Date	Target	Buyers / Investors	(MM USD)	Multiple	Border	Target Business Sub-Sector
Announced	May 1	KLX Inc.	Aviall Inc. (A Boeing Company)	\$4,483		-	Aerospace & Defense
Closed	Apr 24	Extant Components Group Holdings, Inc.	TransDigm Group Incorporated	525	-	•	Aerospace & Defense
Closed	Apr 25	SGT, Inc.	KBRwyle Technology Solutions, LLC	355	-	•	Aerospace & Defense
Closed	Jan 19	FMH Aerospace Corp.	AMETEK, Inc.	235		•	Aerospace & Defense
Closed	Apr 11	Universal Avionics Systems Corporation	Elbit Systems Ltd.	120	-	Yes	Aerospace & Defense
Closed	Mar 15	Kirkhill-TA Co.	TransDigm Group Incorporated	50	-	•	Aerospace & Defense
Announced	Jul 31	Aitech Defense Systems, Inc.	First Israel Mezzanine Investors Ltd.	30	-	Yes	Aerospace & Defense
Closed	Jul 3	Beaver Aerospace & Defense, Inc.	Héroux-Devtek Inc.	24	-	Yes	Aerospace & Defense
Announced	Apr 10	Federal-Mogul LLC	Tenneco Inc.	5,400	7.2x	-	Automotive & Truck
Announced	Mar 7	Thomson Industries, Kollmorgen, Portescap and Jacobs Vehicle Systems	Altra Industrial Motion Corp.	3,000	-	-	Automotive & Truck
Closed	Jul 13	Car Sun Visor Related Assets	Zhoushan Yinmei Automotive Interior Co., Ltd.	147	-	Yes	Automotive & Truck
Closed	Jun 15	Central Conveyor Company, Inc.	U.S. Tsubaki Holdings, Inc.	141	-	-	Automotive & Truck
Announced	Jun 25	Distributed Power Business of GE Power	Advent International Corporation	3,250	-	-	Engineered Products
Announced	Mar 21	Corpus Christi Project, Certain Intellectual Property & plant of M&G USA	Far Eastern Investment (Holding) Limited	1,125		Yes	Engineered Products
Announced	Jun 24	Xerium Technologies, Inc.	Andritz AG	753	7.6x	Yes	Engineered Products
Closed	Apr 2	Nelson Fastener Systems	Stanley Black & Decker, Inc.	440			Engineered Products
Closed	Jun 25	SAES Pure Gas, Inc./SAES Getters (Nanjing) Co., Ltd	Entegris, Inc.; Entegris (shanghai) Microelectronics	355	9.0x	Yes	Engineered Products
Announced	May 22	Toledo Molding & Die, Inc.	Grammer AG	271		Yes	Engineered Products
Closed	Jul 3	Treofan America, Inc. and Trespaphan Mexico Holdings GmbH	Innovia Group (Holding 1) Limited	255	6.4x	Yes	Engineered Products
Closed	Mar 20	Key Technology, Inc.	Duravant LLC	177	17.4x		Engineered Products
Closed	Jun 22	TM4, Inc.	Dana Incorporated	165		Yes	Engineered Products
Announced	Mar 19	VRC, Inc.	Asukanet Co., Ltd.	100		Yes	Engineered Products
Closed	Apr 4	Aftermarket Division of Cloyes Gear & Products, Inc.	Hidden Harbor Capital Partners, LLC	50		-	Engineered Products
Closed	Mar 30	Strobic Air Corporation	Cincinnati Fan and Ventilator Company, Inc.	29			Engineered Products
Closed	Jan 24	MaXfield Group Inc.	TerraVest Capital Inc. (nka:TerraVest Industries Inc.)	16			Engineered Products
Closed	Mar 31	Die-Mold Tool Ltd.	Mueller Industries, Inc.	13		Yes	Engineered Products
Closed	Jun 27	Zyklus Heat Transfer, Inc.	LU-VE S.p.A.	10		Yes	Engineered Products
	May 21	GE Transportation	Westinghouse Air Brake Technologies Corporation	11,100			Industrial Equipment & Technology
Closed	Jun 22	Carrier Commercial Refrigeration, Inc.		1,000	15.4x	-	
	Jul 2	-	Middleby Marshall Inc. Ridge Tool Company, Inc.	810	10.4X		Industrial Equipment & Technology
Closed		Tools & Test Business of Textron Inc.					Industrial Equipment & Technology
Closed	Mar 20	Carlisle FoodService Products, Incorporated	The Jordan Company, L.P.	750	-	-	Industrial Equipment & Technology
	Jun 28	Rolls-Royce Commercial Marine Inc.	Kongsberg Gruppen ASA	500	NM	Yes	Industrial Equipment & Technology
Closed	Jan 31	Precision Hydraulic Cylinders Inc.	Leggett & Platt, Incorporated	85		-	Industrial Equipment & Technology
Closed	Feb 21	Tank Rail Cars of Bridger Rail Shipping, LLC	Undisclosed Buyer	47		Yes	Industrial Equipment & Technology
Announced	Jan 31	LG Chemical America, Inc.	LG Chem Michigan Inc.	25,600			Polymers & Chemicals
Announced	Jan 31	LG Water Solutions	LG Chem Michigan Inc.	18,900			Poylmers & Chemicals
Announced	Feb 15	A. Schulman, Inc.	LyondellBasell Industries N.V.	2,172		Yes	Polymers & Chemicals
Announced	Jun 26	Sid Richardson Carbon Company	Tokai Carbon Co., Ltd.	311	8.3x	Yes	Poylmers & Chemicals
Closed	Mar 16	Shirley-Pennsboro System	CONE Midstream DevCo I LP	265		-	Polymers & Chemicals
Closed	Feb 15	Foam Fabricators, Inc	Compass Diversified Holdings LLC	248	8.3x	•	Polymers & Chemicals
Closed	Jul 4	OCI Partners LP	OCI N.V.	118	9.5x	Yes	Poylmers & Chemicals
Announced	Mar 1	Oro Agri SEZC Limited	Omnia Group (Pty) Ltd	94	9.3x	Yes	Polymers & Chemicals
Closed	Jan 16	All Assets of Horizon Plastics International Inc.	Core Molding Technologies, Inc.	63		Yes	Polymers & Chemicals
Announced	Feb 1	Certain Assets of M & G Polymers USA, LLC	Far Eastern Investment (Holding) Limited	34	-	Yes	Polymers & Chemicals
Closed	Apr 23	Certified Thermoplastics Co., Inc.	Ducommun Incorporated	31	-	-	Polymers & Chemicals
	Jan 17	Polyethylene Terephthalate Plant of M&G USA Corporation	Indorama Ventures Public Company Limited	10	-	Yes	Polymers & Chemicals
Announced							

Sources: EdgePoint Proprietary Database, Company Filings, CapIQ, News Releases

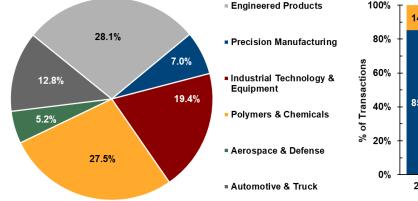
Key Metrics

In the past few years, valuations of industrial manufacturers have remained quite consistent. While there seem to be outlier transactions during each period in which buyers are willing to pay more, the EBITDA multiple tends to fall in the range of 5-10x for transactions in which valuation metrics are reported. Observing multiples for transactions with reported metrics can be somewhat misleading though. Transaction values are at least \$150 million while some are in the billions. Larger transactions can draw higher multiples because of the diversity and scale the target company brings to an acquirer. According to GF Data Resources, the average EBITDA multiple paid for deals that were \$10 million to \$50 million in value during the first half of 2018 was 6.4x. The statistics from GF Data Resources are more in line with the multiples EdgePoint sees for middle market transactions involving similar-sized companies. Strategic buyers have a strong motivation for mergers and acquisitions. Industrial manufacturers face competitive pressures to deliver innovative, cutting-edge solutions while keeping up with technological advances, particularly in automation, that limit costs. Because these challenges often require outside perspectives and expertise, many companies struggle to develop them internally and turn instead to acquisitions to enhance their competitive advantages. Indeed, this enables acquirers to justify higher multiples they are willing to pay for high quality manufacturers that fulfill these needs. At the same time, private equity investors and family offices continue to enjoy favorable credit markets that accommodate high debt-to-EBITDA levels. Buyers who can readily obtain debt financing will typically be aggressive regarding the price that they are willing to pay for a target company.

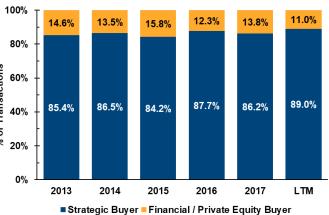


Note: transactions involving Engineered Products or Precision Manufacturers are included in one of the four identified segments based on the seller's end market.

Transactions by Sub-Sector (LTM)



Share of Transactions by Buyer Type



Sources: EdgePoint Proprietary Database, Company Filings, CapIQ, News Releases

Digital Transformation: Impacting the Future for Industrial Manufacturers

Digital transformation, also known as the fourth generation of manufacturing or Industry 4.0, is commanding the attention of industrial manufacturers worldwide. Digital transformation de-



scribes the development of interconnected factories at which the equipment is online, intelligent, and in some cases, capable of making its own decisions. The pace at which industrial manufacturers are adopting Industry 4.0 varies, but it is rapidly becoming a strategic focus for most companies in one way or another. The questions that manufacturers are facing in this regard include the following.

How quickly are industrial manufacturers transforming their processes digitally?

The pace at which digital transformation is implemented varies from company to company. In any case, noted industry experts believe data analytics, artificial intelligence, advanced robotics, augmented reality, and other technologies can be valuable for most manufacturing firms. These technologies have the greatest capabilities when they are integrated with the Internet of Things (IoT), which involves connecting devices with an on-andoff switch to the Internet and to each other.

Digitization—the conversion of information into digital formats that can be processed by computers—is transforming manufacturing from mass production to mass customization. While delivering the right product to the right user at the right price has always been the crux of business, the process for doing so is now reaching new levels of sophistication. KPMG International's 2018 Global Manufacturing Outlook Survey finds that many manufacturing CEOs expect data scientists to be their most important asset in supporting future growth plans.

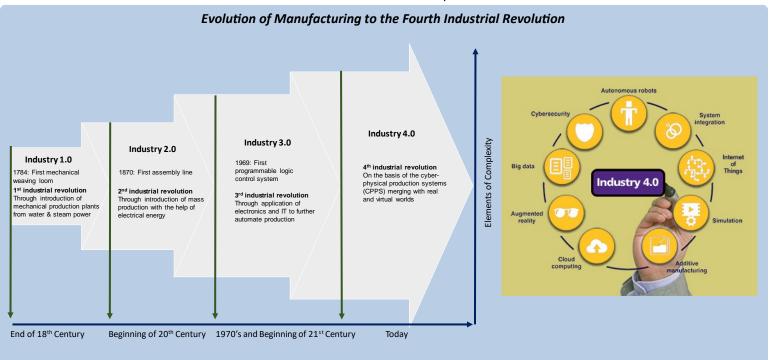
How important is it for middle market companies to adapt?

CEOs of large corporations are, then, working to build digital transformation strategies. At the same time, external stakeholders and the workforces of many companies are taking a keen interest in the development of these technologies. Company leaders are being challenged to demonstrate their capacity to carry out strategic plans and to prove that their companies are maintaining a competitive edge.

An essential component of strategic planning with regard to digital transformation is strengthening supply chains and in general extracting greater value from firms with whom manufacturers conduct business. Value is not just about cost; it involves generating innovative approaches to collaboration. Companies of all sizes throughout the supply chain are naturally being pushed by their customers and vendors to realize their potential fully.

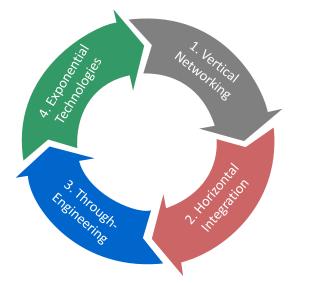
What are some of the challenges to adopting these concepts?

Digital transformation is a long-term solution. According to the KPMG Survey, however, many CEOs admit that their investments in technology, rather than being proactive, are often tactical or reactive. On the other hand, choosing the wrong technology can be costly, and the full benefits of digital transformation are unlikely to materialize unless the strategy being adopted is applied to the entire organization. One way to prepare for the inevitable disruption is to understand how a firm's competitors are likely to behave and which technologies they will adopt.



Digital Transformation: Continued

The Main Characteristics of Industry 4.0: Provides industrial manufacturers significant capacity for change.



1. Vertical networking of smart production systems: Vertical networking uses cyber-physical production systems (CPPSs) that enable autonomous organization of production and maintenance management. Resources and products are networked making materials and parts trackable anywhere at any time. Companies can react rapidly to changes in demand, stock levels, or faults. Production process stages are logged with discrepancies registered automatically so that amendments to orders, fluctuations in quality, and machinery breakdowns can be dealt with sooner.

2. Horizontal integration through a new generation of global value chain networks: New value creation networks enable integrated transparency, a high level of flexibility to respond more rapidly to problems and faults, and facilitation of better global optimization. They create transparency and flexibility across entire process chains from purchasing through production to sales, and from suppliers through customers.

3. Through-engineering across the entire value chain: The development and manufacture of new products and production systems is integrated and coordinated with product life cycles, enabling new synergies to be created between product development and production systems.

4. Acceleration created through exponential technologies: Exponential technologies are having tremendous impacts as accelerants or catalysts that allow individualized solutions, flexibility, and cost savings in industrial processes. Artificial intelligence, advanced robotics, and sensor technology all have the potential to increase autonomy further and to speed up individualization and flexibility.

Interview With: Alexander ("Sandy") Cutler

Former Chairman & CEO of Eaton Corporation Plc



In 2016 Sandy Cutler retired from a successful 42-year career with Eaton Corporation Plc, a multinational power management company with sales of \$20 billion (NYSE), as Chairman and CEO. He is currently Lead Independent Director of DowDuPont Inc. (NYSE), a multinational chemical company (formerly Dow and DuPont) and KeyCorp, a bank holding company (NYSE). He is active in philanthropic activities and has launched a successful small business.

EdgePoint is delighted that you can share your thoughts and insights with our readers. Your experience and perspective with Eaton Corporation, DowDuPont and KeyCorp cover aerospace, electrical, hydraulic, vehicle, chemicals and banking markets. You recently launched a small local business, so you are an entrepreneur too.

EdgePoint: Where are we in the economic cycle in mid-2018 and what are the pinch points in the U. S. economy today?

Sandy Cutler: We are in one of the longest economic expansions since World War II, yet overall inflation is benign and we are not seeing protracted labor inflation. There do not seem to be 'bubbles' in real estate or stocks. Commodity prices were expected to surge, and copper did heat up but has now cooled off. Mid-cap and large-cap stocks are doing well. Will it last into 2019; into 2020? Most concerning to me are trade conflicts. We have never taken on Canada, Mexico, Europe and China all at the same time. Other countries have elected uber-nationalistic leaders. We can't say where it is going.

Source: Deloitte Touche Tohmatsu Limited

INDUSTRIAL MANUFACTURING

Interview with Sandy Cutler (Continued)

EdgePoint: Turning to mergers and acquisitions, what role did acquisitions play in the growth and success of Eaton, and what lessons did you learn along the way?

Sandy Cutler: Eaton did 66 acquisitions and a number of divestitures as well while I was CEO. Some were large and others rather small, but each was done for a strategic purpose – maybe a product extension or new route to market – and regardless of size we used the same acquisition process. Collectively, they were very important to our growth and positioning.

EdgePoint: In your view, what do investors seem to value in today's market?

Sandy Cutler: The market pays up for three kinds of companies: 1) steady growing performers with recurring revenues and low variability, 2) disintermediators with a new product like the smart phone or innovations in selling or delivering the product (like Uber) and 3) special turnaround situations (such as an upgrade of the management team).

EdgePoint: What did Eaton do to make an acquisition successful?

Sandy Cutler: An acquisition must be part of the overall corporate strategy. Otherwise it is a milestone on the road to nowhere. Mid-size companies can't afford an acquisition mistake and integration is key. Due diligence is extraordinarily important and requires a lot of resources because it is the basis for the integration plan. Integration takes senior management time and discipline. You need a full-time person in charge of the integration implementation plan. When the deal closes, you must know what to say to the employees and customers on Day One; otherwise, when an employee goes home and is asked 'what do you think?', you could lose the family's support. Make sure the first payroll is absolutely correct, or you are saying 'we don't value you.' Don't change the payroll system for the first couple of months.

EdgePoint: Manufacturing processes and customer markets are undergoing rapid change from 3-D printing, AI, robotics, IoT, big data, mass customization and new delivery models. How can manufacturers prepare themselves to 'skate to where the puck will be'? **Sandy Cutler**: First, the CEO must step back from fire-fighting and carve out time for thinking and planning. 'Skating to where the puck will be' comes back to strategy and megatrends. It was clear to us over 30 years ago that autos and trucks of the future would have a lot more electrical and electronic content. The same could be seen in airplanes and buildings (like building automation and lighting trends leading to LEDs and the opportunity to improve functionality).

For virtually all businesses, Digitization is the backbone for exploiting new technologies. If you invest in it, you can find opportunities for 'offense'. For example, if you produce high mix, low volume, investment in 3-D printing can pay a good return. A company can decide to be a leader, fast follower or slow follower in adopting new technology. But, it is not just the product. Differentiation is also in how your customer acquires it. Your customers shop on Amazon; why should things slow down when they are ready to buy your product? They want one click to get to your product and less than five minutes to clear their cart.

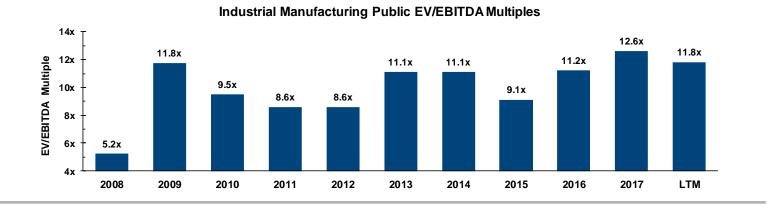
EdgePoint: In the first half of 2018, 50% of the Industrial M&A transactions we noted were cross-border. Why do you think that is, and what patterns do you see in Industrial M&A transactions?

Sandy Cutler: Today, 26%-28% of the U.S. economy is international trade (not counting major services like consulting). Our GDP is a relatively small portion of the world's. Europe and China are attractive markets. At Eaton, overseas was small when I came in as CEO, and we worked to make our sales mix look more like world GDP. Companies value local manufacturing and supply chains – they also recognize that regional sales and application engineering is important since product configurations are often localized to conform to regulations and regional preferences.

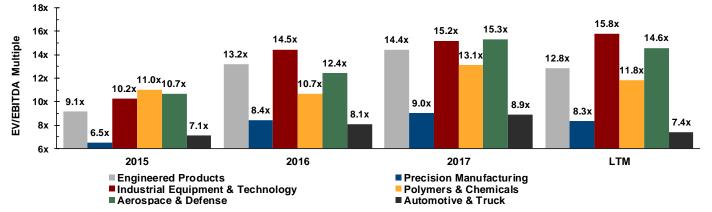
For 30 years, many European nations enjoyed a 15% tax rate and could afford to pay a larger acquisition premium versus a U.S. buyer with a 27% effective tax rate for a U.S. company. That has been largely cured by the new tax law, which makes more capital available to U.S. companies for growth. With so much good technology available, the new tax law enables middle market companies to invest for competitive advantages. What is your company doing with its 'tax dividend'?

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Public Company Trading Multiples



Industrial Manufacturing Sub-Sector Public EV/EBITDA Multiples



Source: CapIQ. Note: Multiple of Enterprise Value, or "EV" (Net Debt + Equity) to Earnings Before Interest, Taxes, Depreciation, and Amortization

Selected EdgePoint Industrial Manufacturing Transactions

Automotivo & Truck

Automotive & Truck	Precision Manufacturing	Aerospace & Defense	Industrial Technology and Equipment	Polymers & Chemicals
Sell-Side Advisory	Sell-Side Advisory	Sell-Side Advisory	Sell-Side Advisory	Sell-Side Advisory
and ALERO TORQUE have sold to The TIMKEN Company	Arc Drilling, Inc. has been recapitalized by Washington Equity Partners	SIFCO Industries has sold its Applied Surface Concepts business to Norman Hay PLC	Compass Systems and Sales, Inc. has sold to Alston Capital Partners	Superior Abrasives has sold to August Ruggeberg GmbH & Co. KG
Engineered Products	Precision Manufacturing	Polymers & Chemicals	Polymers & Chemicals	Engineered Products
Sell-Side Advisory	Sell-Side Advisory	Sell-Side Advisory	Sell-Side Advisory	Sell-Side Advisory
AMERICAN TURBOCHARGER American Turbocharger Technologies <i>has sold to</i> A. Stucki Company	Delco Corporation has sold to Capital For Business	Kleen Polymers, Inc. has sold to Preferred Compounding	CREATIVE Creative Extruded Products has sold to Quilvest Private Equity	Aero Transportation Products, Inc. has sold to Wabtec Corporation
EDGEP	M&A Advisory RESULTS with			