

# FLOW CONTROL

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# Industry In-Sight™

SECOND QUARTER 2019



**JORDAN KNAUFF  
& COMPANY**

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# Introduction

BY G. COOK JORDAN, JR.

## *Who is JKC and What Do We Do?*

Jordan Knauff & Company (JKC) was founded in 2001 to undertake a distinct mission: to assemble and maintain a staff of top-notch investment banking personnel and offer their knowledge and experience to provide the best available investment banking services to middle-market companies, the entrepreneurs that lead them and the financial entities that transact with them. On a combined basis, over the course of their careers our employees have completed over 200 transactions as investors, owners, operators, investment bankers, buyers of middle-market businesses or sellers of middle-market businesses across a variety of industries. The majority of our firm's broad transaction experience has been with private companies owned by one shareholder, a partnership, a family or private equity investors.

Experience has taught us that the owners and executives of middle-market businesses tend to have very different needs and goals in capital transactions from those that are common to capital events related to larger companies. Our personnel apply their considerable expertise to accomplish important goals: delivery of successful outcomes for our clients. Pursuant to that, we direct and manage all aspects of the capital transaction process, assist our clients with the management of important constituents (employees, customers, vendors and lenders), act as a teammate to other important client advisors (legal counsel, accountant, tax advisor) and collaborate with transaction counsel in the negotiations with the parties on the other side of the transaction.

## *The Services We Provide*

### ■ **Sell Companies**

- Representation of owners who are seeking the sale of their business – ranging from the sale of part of the equity of a company to a full liquidity transaction involving the sale of the entire business. In either case, our objective is to transfer the inherent value of the business into an exchange which yields the best price and structure that meet the specific transaction goals of our client.

### ■ **Raise Debt and Equity Capital**

- We represent clients in the raising of all forms of capital: senior debt, mezzanine debt and equity capital. Proceeds may be typically used for a variety of applications, including: funding growth, recapitalization, expansion of assets, acquisitions or partial liquidity for shareholders.

***Experience has taught us that the owners and executives of middle-market businesses tend to have very different needs and goals ... than... larger companies.***

■ **Acquisition Advisory**

- Assistance to clients in the successful closing of an acquisition. Pertinent services include: valuation, optimization of structure, direction of the due diligence process and negotiation of transaction documents. Acquisition advisory services encompass work on a standalone target or a series of acquisitions that form a strategic consolidation plan.

■ **Strategic Business Services**

- A suite of consulting projects designed specifically for middle-market business owners and executives to enable them to make better decisions about their companies or industries. Services include:
  - Company Specific Valuations
  - Capital Road Maps®
  - Strategic Industry Analyses

**Areas of Expertise**

Our team of professionals has notable experience in a broad portfolio of industries. While each project is evaluated on a case-by-case basis and the firm has the capabilities to service middle-market companies in almost any industry, JKC has significant expertise in the following industries:

**Manufacturing & Distribution**

- Manufacturing / Valued Added Manufacturing
- Manufacturing Process Technology
- Distribution / Value Added Distribution

**Energy Logistics & Distribution**

- Natural Gas Liquids: Direct to Consumer, Wholesale & Midstream
- Light Fuels
- Lubricants
- Petro Chemicals

**Building Products & Services**

- Windows & Doors
- Pre-fabricated Forms and Components
- Caulks & Sealants
- Flooring Products

**Flow Control**

- Pumps, Valves & Filtration
- Water Management
- Related Technology

**Business Services**

**Real Estate**

**Closing Thoughts**

Thank you for taking the time to review this quarterly publication. We hope that you will find it to be relevant and informative. With that purpose in mind, we would welcome any thoughts or comments that you may have about it. Visit our research library at [www.jordanknauff.com/research-library](http://www.jordanknauff.com/research-library) to view our previous Flow Control quarterly publications, as well as our other industry publications.

If you desire more information about our firm and its mission, please contact any member of our team listed on the back cover of this report. Our website is [www.jordanknauff.com](http://www.jordanknauff.com) and our main telephone number is (312) 254-5900.

**... please contact any member of our team listed on the back cover of this report.**

## Current Events / Trends

BY G. COOK JORDAN, JR.  
LORI A. CALLWAY

### *Ingersoll-Rand's Industrial Business Merges with Gardner Denver*



Gardner Denver Holdings Inc. agreed to merge with the industrial division of Ingersoll Rand Plc, a combination that will create the world's second-largest industrial pumps and compressors manufacturer valued at approximately \$15 billion. The new company is expected to be called Ingersoll Rand and trade under Ingersoll Rand's existing ticker (NYSE: IR). Ingersoll Rand will retain its heating, ventilation and air-and temperature-controlled transport business for buildings, homes and transportation.

The deal itself is structured as a "Reverse Morris Trust." It calls for Ingersoll Rand to spin off its industrial segment to its shareholders and simultaneously merge with Gardner Denver. The remaining climate business of Ingersoll Rand will receive a \$1.9 billion cash payment from the industrial company. Ingersoll Rand shareholders will also receive 210 million shares in the new company valued at \$5.8 billion, giving them 50.1% ownership of the new firm. Gardner Denver shareholders will own 49.9% of the company.

The new industrial company will have about \$6.6 billion in revenue and \$1.6 billion in annual adjusted earnings before interest, tax, depreciation and amortization (EBITDA). The companies anticipate \$250 million in cost synergies from the deal, primarily tied to global manufacturing and service footprint changes, increased procurement power and optimizing the general and administrative organization, processes and systems.

Gardner Denver's Chief Executive Officer, Vincente Reynal, and a management team from both companies will lead the new industrial company. Ingersoll Rand's resulting climate company will be run by Michael Lamach, Ingersoll Rand's current Chairman and Chief Executive Officer. The climate company is expected to have a new name and stock ticker with pro forma revenue of approximately \$12.9 billion and adjusted EBITDA of \$2 billion.

Gardner Denver had revenue of \$2.69 billion in 2018, while Ingersoll Rand's industrial segment had revenue of \$3.32 billion in 2018. The transaction is expected to close by early 2020, subject to approval by Gardner Denver stockholders, regulatory approvals and customary closing conditions.

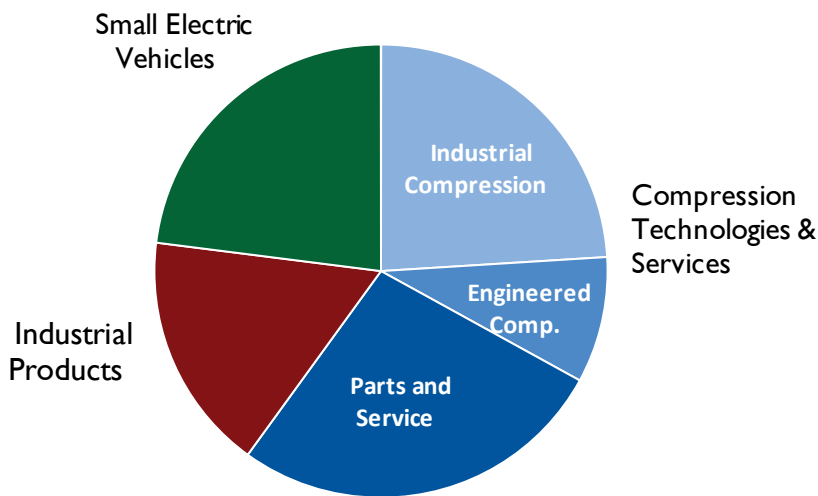
Ingersoll-Rand was founded in 1871 and is headquartered in Swords, Ireland. The industrial segment provides compression technologies, specialty tools, material and fluid handling equipment, small electric vehicles, as well as aftermarket controls, parts, accessories and consumables.

Gardner Denver provides a broad and complete range of compressor, pump, vacuum and blower products and services, which it sells across multiple end-markets within the industrial, energy and medical industries. Gardner Denver has a global geographic footprint of 39 manufacturing facilities, more than 30 service and repair centers across six continents, and approximately 6,700 employees worldwide.

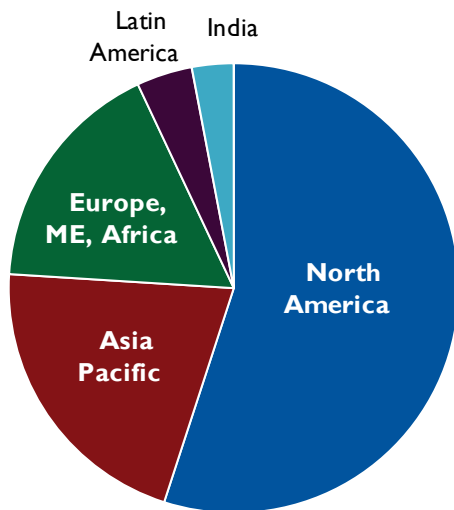
**THE FLOW CONTROL INDUSTRY – QUARTERLY UPDATE**

The transaction also includes Ingersoll Rand’s recently completed acquisition of Precision Flow Systems for \$1.45 billion from funds advised by BC Partners Advisors LP and The Carlyle Group. Precision Flow Systems, which has been operated by Accudyne Industries since 2012, had sales of approximately \$400 million in 2018, employs around 1,000 people and has seven global manufacturing locations. The company designs, manufactures and supports highly engineered positive displacement pumps, boosters, mixers and systems for customers in the water, precision irrigation, oil and gas, chemical and industrial markets. It’s brands include Milton Roy, LMI, Haskel, BuTech, Dosatron, YZ Systems, Williams and Hartell.

**Ingersoll Rand Industrial Segment  
Revenue by Business Unit**



**Ingersoll Rand Industrial Segment  
Revenue by Geography**



Source: Ingersoll-Rand Plc, revenue breakdown as of 2018.

# Mergers & Acquisitions Activity

BY DAVID A. KAKAREKA

Flow Control M&A activity continues to be resilient as evidenced by the recent transactions listed below.

**TABLE II: SELECTED VALVE M&A TRANSACTIONS: 2Q 2019<sup>(1)</sup>**

Announced Date	Target	Acquirer(s)
6/26/2019	Energy Steel & Supply Co.	Hayward Tyler Group Plc
5/21/2019	CIRCOR International, Inc.	Crane Co.
4/30/2019	Industrial Business of Ingersoll-Rand plc	Gardner Denver Holdings, Inc.

**TABLE III: SELECTED PUMP M&A TRANSACTIONS: 2Q 2019<sup>(1)</sup>**

Announced Date	Target	Acquirer(s)
6/26/2019	Energy Steel & Supply Co.	Hayward Tyler Group Plc
5/28/2019	Oy Pumppuhlojja Ab	Lakers Holding AB
5/21/2019	CIRCOR International, Inc.	Crane Co.
5/15/2019	VIP Tehnika	AxFlow Group
5/7/2019	All-Flo Pump Company, Ltd.	Dover Corporation
4/30/2019	Industrial Business of Ingersoll-Rand plc	Gardner Denver Holdings, Inc.
4/9/2019	Ohio Transmission Corporation	Genstar Capital
4/2/2019	ABC Electric Corporation	PumpMan, Inc.
4/1/2019	Ebara International Corporation	Elliott Group
4/1/2019	Finder Pompe Srl	Gruppo Aturia Spa

**TABLE IV: SELECTED FILTER M&A TRANSACTIONS: 2Q 2019<sup>(1)</sup>**

Announced Date	Target	Acquirer(s)
6/5/2019	Air Services Division of Carter Environmental Engineers Ltd.	Filtermist International Limited
5/28/2019	Atg UV Technology Ltd.	Evoqua Water Technologies Corp.
5/16/2019	KS Klima-Service as	TROX GmbH
4/8/2019	Water-Right, Inc. / Mineral-Right, Inc.	A. O. Smith Corporation
4/3/2019	Trinity Technology Group	Akoya Capital, LLC; Landon Capital Partners, LLC

(1) Source: S&P Capital IQ and JKC research.

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# Public Equity and Valuation Analysis

BY DAVID A. KAKAREKA

## Wall Street Valve Watch

The JKC Valve Stock Index was down 2.5% over the last 12 months, while the broader S&P 500 Index was up 7.9%.

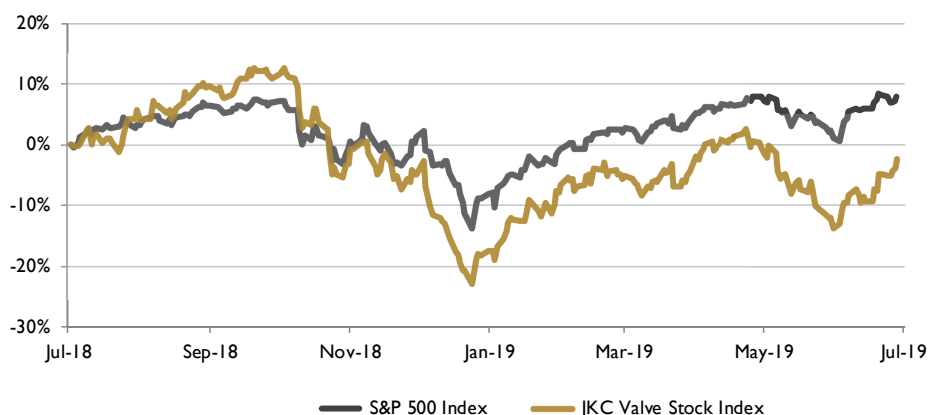
**Brent crude oil spot prices averaged \$71 per barrel in April ...**

Brent crude oil spot prices averaged \$71 per barrel in April, up \$5 per barrel from March 2019 and just below the price in April of last year. The U.S. Energy Information Administration (EIA) forecasts Brent spot prices will average \$70 per barrel in 2019 and \$67 per barrel in 2020, compared with an average of \$71 per barrel in 2018. The forecast reflects expected tighter global oil market balances in mid-2019 and increasing global supply disruption risks. The EIA forecasts that global oil inventories will decline by 0.2 million barrels per day in 2019 and then increase by 0.1 million barrels per day in 2020.<sup>(1)</sup>

U.S. net natural gas exports in February totaled 4.6 billion cubic feet per day (Bcf/d), marking the 13th consecutive month in which exports exceeded imports. Natural gas exports to Canada were 3.3 Bcf/d in February, the highest on record, as exports to Canada averaged 2.3 Bcf/d in 2018. U.S. pipeline exports to Mexico averaged 5.2 Bcf/d in 2018, up from 4.2 Bcf/d in 2017. The recent growth is a result of new pipelines installed in Texas and new natural gas fired power plant projects that were completed in Mexico. U.S. LNG exports averaged 3.0 Bcf/d in 2018 and reached 4.1 Bcf/d in January of this year.

On Wall Street, the market had a record breaking first half of 2019, with the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite rising 14.0%, 17.4% and 20.7%, respectively. The S&P 500 had its best first half performance since 1997. Positive developments in the trade war with China, a softer monetary stance by the Federal Reserve Bank and a rebound of crude oil prices due to supply cuts by OPEC and Russia are major reasons for the rally. For the month of June, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite gained 7.2%, 6.9% and 7.4%, respectively.

**CHART I: JKC VALVE STOCK INDEX<sup>(2)</sup>**



(1) See Economic Indicators section of this report for more detailed information on these indicators.

(2) Source: S&P Capital IQ and JKC research. Local currency converted to USD using historical spot rates. The JKC Valve Stock Index includes a select list of publicly-traded companies involved in the valve industry weighted by market capitalization.



Valve Companies

As shown in Tables V and VI, as of June 30, 2019, domestic and international Valve companies were trading at median total enterprise value / latest twelve months (“TEV/LTM”) EBITDA multiples of 12.4x and 10.1x, respectively, while both groups have median EBITDA margins of 17.6% and 12.3%, respectively. The median stock price as a percentage of the 52-week high for both groups is 90% and 81%, respectively, of their 52-week highs. With the exception of a few companies, we believe both groups are fairly well capitalized.

TABLE V: SELECTED DOMESTIC VALVE COMPANIES<sup>(1)</sup>

(US\$ in millions, except per share data)

Company	LTM			Stock Price 6/30/2019	% of 52-Week High	Market Cap	Total Enterprise Value <sup>(3)</sup>	TEV / LTM		Net Debt <sup>(4)</sup> EBITDA
	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin					Revenues	EBITDA	
Badger Meter Inc. (BMI)	\$423	\$72	17.1%	\$59.69	96.9%	\$1,738	\$1,734	4.1x	24.0x	(0.3x)
CIRCOR International Inc. (CIR)	1,139	127	11.1	46.00	94.5	915	1,605	1.4	12.6	5.4
Crane Co. (CR)	3,369	592	17.6	83.44	83.3	4,997	5,861	1.7	9.9	1.3
Curtiss-Wright Corp. (CW)	2,461	504	20.5	127.13	90.0	5,438	6,204	2.5	12.3	1.4
Dover Corp. (DOV)	7,092	1,276	18.0	100.20	99.8	14,562	17,778	2.5	13.9	2.5
Emerson Electric Co. (EMR)	18,289	3,715	20.3	66.72	83.7	41,007	46,006	2.5	12.4	1.2
Flowserve Corp. (FLS)	3,820	514	13.5	52.69	92.7	6,910	7,956	2.1	15.5	2.0
General Electric Co. (GE)	120,782	14,735	12.2	10.50	73.5	91,568	207,656	1.7	14.1	6.5
Honeywell International Inc. (HON)	38,618	8,720	22.6	174.59	98.4	127,056	133,384	3.5	15.3	0.8
ITT Corporation (ITT)	2,774	485	17.5	65.48	99.8	5,749	5,408	1.9	11.1	(0.6)
Mueller Water Products, Inc. (MWA)	955	188	19.7	9.82	78.0	1,555	1,869	2.0	9.9	1.6
Parker Hannifin Corporation (PH)	14,320	2,554	17.8	170.01	88.0	21,810	25,948	1.8	10.2	1.5
Schlumberger Limited (SLB)	32,833	6,686	20.4	39.74	57.1	55,045	69,859	2.1	10.4	2.2
SPX Flow Inc. (FLOW)	2,074	260	12.5	41.86	77.3	1,780	2,419	1.2	9.3	2.3
TechnipFMC plc (FTI)	12,814	1,594	12.4	25.94	77.2	11,584	11,737	0.9	7.4	0.1
Watts Water Technologies, Inc. (WTS)	1,584	246	15.5	93.18	99.0	3,165	3,402	2.1	13.8	0.9
Xylem Inc. (XYL)	5,255	943	17.9	83.64	99.1	15,050	17,390	3.3	18.4	2.5
<b>Median</b>			<b>17.6%</b>		<b>90.0%</b>			<b>2.1x</b>	<b>12.4x</b>	<b>1.5x</b>
<b>Mean</b>			<b>16.9</b>		<b>87.5</b>			<b>2.2</b>	<b>13.0</b>	<b>1.8</b>

(1) Source: S&P Capital IQ and JKC research.

(2) Revenues and EBITDA are for the latest twelve months as of 6/30/19.

(3) Total enterprise value is defined as market capitalization plus total debt less cash and cash equivalents.

(4) Net debt is defined as total debt less cash and cash equivalents.

**TABLE VI: SELECTED INTERNATIONAL VALVE COMPANIES<sup>(1)</sup>**

(US\$ in millions, except per share data)

Company	LTM			Stock Price 6/30/2019	% of 52-Week High	Market Cap	Total Enterprise Value <sup>(3)</sup>	TEV / LTM		Net Debt <sup>(4)</sup> EBITDA
	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin					Revenues	EBITDA	
Aalberts Industries NV (AALB)	\$3,139	\$466	14.8%	\$39.34	83.5%	\$4,350	\$5,048	1.6x	10.8x	2.2x
Alfa Laval AB (ALFA)	4,521	813	18.0	21.82	81.1	9,153	9,930	2.2	12.2	1.2
Georg Fischer AG (FI-N)	4,713	539	11.4	956.14	68.8	3,914	4,208	0.9	7.8	0.8
Hisaka Works Ltd. (6247)	287	30	10.5	8.07	69.4	227	81	0.3	2.7	(3.2)
Hitachi Ltd. (6501)	87,958	9,666	11.0	36.64	95.8	35,399	45,350	0.5	4.7	0.2
IMI plc (IMI)	2,423	438	18.1	13.19	81.9	3,571	4,080	1.7	9.3	1.5
Kitz Corp. (6498)	1,268	156	12.3	7.00	72.7	649	845	0.7	5.4	1.4
KSB Aktiengesellschaft (KSB)	2,564	141	5.5	336.82	79.1	604	593	0.2	4.2	(1.4)
Kubota Corp. (6326)	17,650	2,349	13.3	16.63	89.0	20,449	26,942	1.5	11.5	2.3
Lupatech S.A. (LUPA3)	36	(33)	(92.5)	0.39	58.5	7	60	1.7	NM	(1.2)
Metso Corp. (METSO)	3,749	501	13.4	39.31	98.0	5,900	6,178	1.6	12.3	0.9
Okano Valve Manufacturing Co. (6492)	67	2	2.9	19.37	76.0	34	26	0.4	13.2	(3.9)
Saint Gobain (SGO)	47,535	5,602	11.8	39.00	87.5	21,192	30,891	0.6	5.5	2.6
SMC Corp. (6273)	5,353	1,823	34.1	372.69	86.0	24,960	19,939	3.7	10.9	(2.6)
Spirax-Sarco Engineering plc (SPX)	1,466	436	29.8	116.72	98.6	8,593	8,894	6.1	20.4	1.3
The Weir Group PLC (WEIR)	3,113	515	16.6	19.65	76.1	5,089	6,545	2.1	12.7	3.2
Velan, Inc. (VLN)	369	16	4.3	6.93	64.3	150	132	0.4	8.3	(0.4)
<b>Median</b>			12.3%		81.1%			1.5x	10.1x	0.9x
<b>Mean</b>			8.0		80.4			1.5	9.5	0.3

(1) Source: S&amp;P Capital IQ and JKC research.

(2) Revenues and EBITDA are for the latest twelve months as of 6/30/19.

(3) Total enterprise value is defined as market capitalization plus total debt less cash and cash equivalents.

(4) Net debt is defined as total debt less cash and cash equivalents.

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### Wall Street Pump Watch

The JKC Pump Stock Index was up 2.3% over the last twelve months, while the S&P 500 Index was up 7.9% over the same time period.

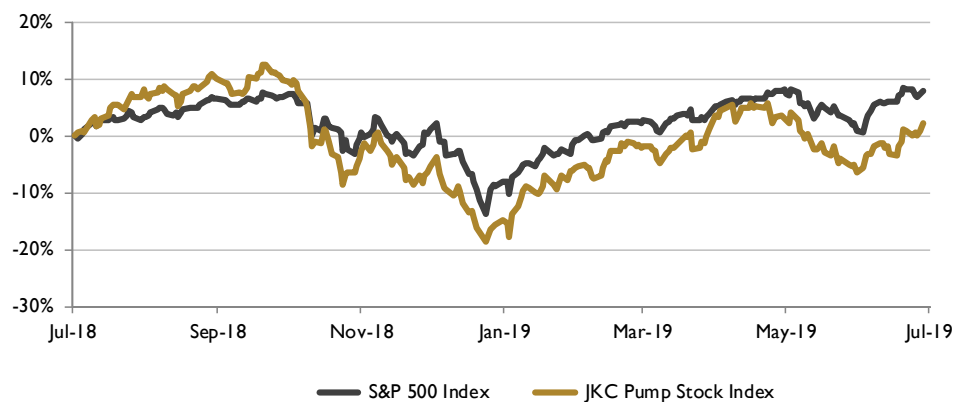
The Institute for Supply Management's Purchasing Managers' Index (PMI) registered 51.7% in June, a decrease of 0.4 percentage points from the May reading of 52.1%. June was the third straight month with slowing PMI expansion. New orders hit a three-and-a-half-year low, at 50.0%, a decrease of 2.7 percentage points from the May reading. Production improved over the month, with the index up nearly three points to 54.1%. The employment index also edged higher for a second straight month. At 54.5%, it represents only modest additions to factory jobs. Overall, respondent sentiment was evenly mixed with continuing expanding business strength, but at soft levels. Respondents expressed concern about U.S. and China trade issues, potential Mexico trade actions and the global economy.<sup>(1)</sup>

According to the Bureau of Labor Statistics, the U.S. economy added 224,000 nonfarm payrolls during June. May's figures were revised to 72,000 positions, down from the previously reported 75,000. Employment growth has averaged 172,000 jobs per month this year. Sectors with notable gains for the month included professional and business services and health care. The transportation and warehousing sector gained 24,000 jobs, while manufacturing added 17,000 positions.

On Wall Street, the market had a record breaking first half of 2019, with the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite rising 14.0%, 17.4% and 20.7%, respectively. The S&P 500 had its best first half performance since 1997. Positive developments in the trade war with China, a softer monetary stance by the Federal Reserve Bank and a rebound of crude oil prices due to supply cuts by OPEC and Russia are major reasons for the rally. For the month of June, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite gained 7.2%, 6.9% and 7.4%, respectively.

**June was the third straight month with slowing PMI expansion.**

**CHART II: JKC PUMP STOCK INDEX<sup>(2)</sup>**



(1) See Economic Indicators section of this report for more detailed information on these indicators.

(2) Source: S&P Capital IQ and JKC research. Local currency converted to USD using historical spot rates. The JKC Pump Stock Index includes a select list of publicly-traded companies involved in the pump industry weighted by market capitalization.

**Pump Companies**

Domestic Pump companies (as listed in Table VII) and international Pump companies (in Table VIII) were trading at median TEV/LTM EBITDA multiples of 14.2x and 11.1x, respectively, as of June 30, 2019. As you can see, both groups are similarly leveraged with a median net debt/LTM EBITDA ratio of 2.1x for domestic Pump companies compared to 0.9x for international Pump companies. In our assessment, both groups are extremely well capitalized and could afford to take on additional indebtedness.

**TABLE VII: SELECTED DOMESTIC PUMP COMPANIES<sup>(1)</sup>**

(US\$ in millions, except per share data)

Company	LTM			Stock Price 6/30/2019	% of 52-Week High	Market Cap	Total Enterprise Value <sup>(3)</sup>	TEV / LTM		Net Debt <sup>(4)</sup> EBITDA
	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin					Revenues	EBITDA	
Ampco-Pittsburgh Corp. (AP)	\$396	\$9	2.3%	\$4.03	36.4%	\$50	\$129	0.3x	14.3x	8.6x
Baker Hughes Inc. (BHGE)	23,538	2,762	11.7	24.63	69.3	12,698	35,244	1.5	12.8	1.8
Colfax Corporation (CFX)	4,165	560	13.4	28.03	75.7	3,295	7,588	1.8	13.6	7.4
Crane Co. (CR)	3,369	592	17.6	83.44	83.3	4,997	5,861	1.7	9.9	1.3
Curtiss-Wright Corp. (CW)	2,461	504	20.5	127.13	90.0	5,438	6,204	2.5	12.3	1.4
Danaher Corp. (DHR)	20,253	4,851	24.0	142.92	98.9	102,321	110,504	5.5	22.8	1.2
Dover Corp. (DOV)	7,092	1,276	18.0	100.20	99.8	14,562	17,778	2.5	13.9	2.5
Energy Recovery, Inc. (ERII)	83	18	21.6	10.42	93.8	568	492	6.0	27.6	(4.6)
Flowserve Corp. (FLS)	3,820	514	13.5	52.69	92.7	6,910	7,956	2.1	15.5	2.0
Franklin Electric Co. Inc. (FELE)	1,305	163	12.5	47.50	85.4	2,204	2,404	1.8	14.8	1.3
General Electric Co. (GE)	120,782	14,735	12.2	10.50	73.5	91,568	207,656	1.7	14.1	6.5
Gorman-Rupp Co. (GRC)	411	59	14.5	32.83	85.8	858	809	2.0	13.6	(1.0)
Graco Inc. (GGG)	1,656	468	28.3	50.18	93.1	8,356	8,528	5.2	18.2	0.2
IDEX Corp. (IEX)	2,501	672	26.9	172.14	99.8	13,032	13,493	5.4	20.1	0.6
Illinois Tool Works Inc. (ITW)	14,354	3,928	27.4	150.81	95.0	49,130	55,313	3.9	14.1	1.6
Ingersoll-Rand Co. Ltd. (IR)	16,030	2,403	15.0	126.67	99.7	30,548	34,810	2.2	14.5	2.3
ITT Corporation (ITT)	2,774	485	17.5	65.48	99.8	5,749	5,408	1.9	11.1	(0.6)
National Oilwell Varco, Incorporated (NOV)	8,624	425	4.9	22.23	45.3	8,579	10,710	1.2	25.2	5.1
Pentair, Inc. (PNR)	2,940	541	18.4	37.20	80.9	6,394	7,764	2.6	14.4	2.2
Roper Technologies Inc. (ROP)	5,313	1,838	34.6	366.26	98.9	38,033	42,422	8.0	23.1	2.5
Schlumberger Limited (SLB)	32,833	6,686	20.4	39.74	57.1	55,045	69,859	2.1	10.4	2.2
SPX Flow Inc. (FLOW)	2,074	260	12.5	41.86	77.3	1,780	2,419	1.2	9.3	2.3
Standex International Corp. (SXI)	884	126	14.2	73.14	64.0	925	1,122	1.3	8.9	1.6
United Technologies Corp. (UTX)	72,553	12,780	17.6	130.20	90.2	112,350	156,215	2.2	12.2	3.2
Weatherford International Ltd. (WFT)	5,528	493	8.9	0.05	1.4	50	8,011	1.4	16.2	16.2
Xylem Inc. (XYL)	5,255	943	17.9	83.64	99.1	15,050	17,390	3.3	18.4	2.5
<b>Median</b>			<b>17.5%</b>		<b>87.9%</b>			<b>2.1x</b>	<b>14.2x</b>	<b>2.1x</b>
<b>Mean</b>			<b>17.2</b>		<b>80.2</b>			<b>2.7</b>	<b>15.4</b>	<b>2.7</b>

(1) Source: S&P Capital IQ and JKC research.

(2) Revenues and EBITDA are for the latest twelve months as of 6/30/19.

(3) Total enterprise value is defined as market capitalization plus total debt less cash and cash equivalents.

(4) Net debt is defined as total debt less cash and cash equivalents.

**TABLE VIII: SELECTED INTERNATIONAL PUMP COMPANIES<sup>(1)</sup>**

(US\$ in millions, except per share data)

Company	LTM			Stock Price 6/30/2019	% of 52-Week High	Market Cap	Total Enterprise Value <sup>(3)</sup>	TEV / LTM		Net Debt <sup>(4)</sup> EBITDA
	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin					Revenues	EBITDA	
Alfa Laval AB (ALFA)	\$4,521	\$813	18.0%	\$21.82	81.1%	\$9,153	\$9,930	2.2x	12.2x	1.2x
Andritz AG (ANDR)	7,090	603	8.5	37.67	61.9	3,803	4,315	0.6	7.2	0.9
DMW Corp. (6365)	170	20	12.0	19.57	86.1	84	11	0.1	0.5	(4.8)
Ebara Corp. (6361)	4,724	456	9.7	27.13	72.4	2,672	2,445	0.5	5.4	(0.8)
FLSmidth & Co. A/S (FLS)	2,886	260	9.0	45.27	70.1	2,263	2,578	0.9	9.9	1.6
Gevelot SA (ALGEV)	105	12	11.1	224.17	97.5	172	(12)	NM	NM	(15.2)
GUD Holdings Ltd. (GUD)	296	63	21.3	7.02	64.4	607	707	2.4	11.2	1.5
Hyundai Heavy Industries Co. Ltd. (A009540)	11,533	40	0.3	102.41	80.9	7,242	7,889	0.7	199.1	(11.0)
John Wood Group plc (WG)	9,985	562	5.6	5.74	56.4	3,850	5,449	0.5	9.7	2.8
Kirloskar Brothers Ltd. (500241)	486	18	3.8	2.66	61.1	211	253	0.5	13.7	2.4
KSB Aktiengesellschaft (KSB)	2,564	141	5.5	336.82	79.1	604	593	0.2	4.2	(1.4)
Kubota Corp. (6326)	17,650	2,349	13.3	16.63	89.0	20,449	26,942	1.5	11.5	2.3
Metso Corp. (METSO)	3,749	501	13.4	39.31	98.0	5,900	6,178	1.6	12.3	0.9
Nikkiso Co. Ltd. (6376)	1,562	173	11.1	13.30	92.1	947	1,913	1.2	11.1	5.5
Pfeiffer Vacuum Technology AG (PFV)	732	114	15.5	142.69	82.4	1,408	1,368	1.9	12.0	(0.2)
SKF AB (SKF B)	9,309	1,303	14.0	18.39	93.8	8,373	9,480	1.0	7.3	0.8
Spirax-Sarco Engineering plc (SPX)	1,466	436	29.8	116.72	98.6	8,593	8,894	6.1	20.4	1.3
Sulzer, Ltd. (SUN)	3,448	333	9.7	109.35	82.5	3,712	3,969	1.2	11.9	1.5
Teikoku Electric Mfg.Co.,Ltd. (6333)	207	30	14.4	11.75	70.6	232	162	0.8	5.4	(2.5)
The Weir Group PLC (WEIR)	3,113	515	16.6	19.65	76.1	5,089	6,545	2.1	12.7	3.2
Torishima Pump Manufacturing Co. Ltd. (6363)	447	34	7.6	9.81	92.8	267	287	0.6	8.5	(0.9)
Tsurumi Manufacturing Co. Ltd. (6351)	403	52	12.8	18.14	89.9	454	334	0.8	6.5	(2.7)
<b>Median</b>			<b>11.6%</b>		<b>81.7%</b>			<b>0.9x</b>	<b>11.1x</b>	<b>0.9x</b>
<b>Mean</b>			<b>12.0</b>		<b>80.8</b>			<b>1.3</b>	<b>18.7</b>	<b>(0.6)</b>

(1) Source: S&amp;P Capital IQ and JKC research.

(2) Revenues and EBITDA are for the latest twelve months as of 6/30/19.

(3) Total enterprise value is defined as market capitalization plus total debt less cash and cash equivalents.

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### Wall Street Filter Watch

The JKC Filter Stock Index was up 2.9% over the last twelve months, while the S&P 500 Index was up 7.9%.

Total housing starts declined 0.9% during June, dragged down by a sharp 9.2% decline in the multifamily segment. Single-family construction rose a solid 3.5%. Single-family building improved in three of the past four months. Single-family construction improved in the West and South, which increased 9.8% and 1.1%, respectively. Single-family starts also gained 8.0% in the Midwest, but dropped 6.1% in the Northeast.<sup>(1)</sup>

After gains in May, total existing home sales, including single-family homes, townhomes, condominiums and co-ops, dropped 1.7% in June. On a year-over-year basis, sales were 2.2% lower than a year ago, marking the sixteenth straight month of declines on an annualized basis. The first-time buyer share rose to 35% in June from 32% in May and 31% a year ago.

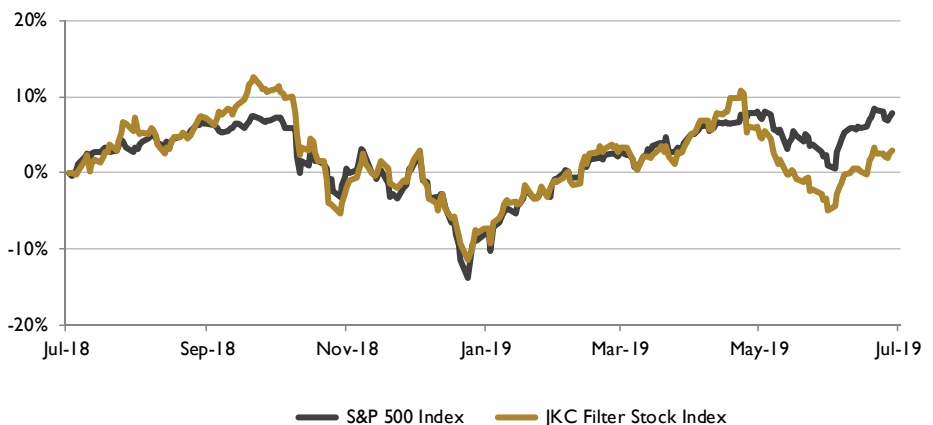
Rising car prices and higher interest rates dulled demand for autos in the first six months of the year. After six monthly declines, the industry is down 2.4% over last year. Auto sales are on pace to finish at slightly more than 16.9 million. The average new vehicle sold for about \$33,350 in the first six months, a record for the period and up nearly 4% from a year earlier.

GM's U.S. sales fell 4% through June, while Fiat Chrysler reported a 2% decline in the first six months. Toyota Motor Corp. was off 3% in the first half, Nissan was down 8.2% and Honda Motor Co.'s U.S. sales fell 1.4%.

On Wall Street, the market had a record breaking first half of 2019, with the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite rising 14.0%, 17.4% and 20.7%, respectively. The S&P 500 had its best first half performance since 1997. Positive developments in the trade war with China, a softer monetary stance by the Federal Reserve Bank and a rebound of crude oil prices due to supply cuts by OPEC and Russia are major reasons for the rally. For the month of June, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite gained 7.2%, 6.9% and 7.4%, respectively.

**Rising car prices and higher interest rates dulled demand for autos in the first six months of the year.**

**CHART III: JKC FILTER STOCK INDEX<sup>(2)</sup>**



(1) See Economic Indicators section of this report for more detailed information on these indicators.

(2) Source: S&P Capital IQ and JKC research. Local currency converted to USD using historical spot rates. The JKC Filter Stock Index includes a select list of publicly-traded companies involved in the filter industry weighted by market capitalization.



**Filter Companies**

As of June 30, 2019, domestic and international Filter companies (listed in Table IX and Table X, respectively) were trading at medians of 13.8x and 9.9x, respectively, of TEV/LTM EBITDA with median LTM EBITDA margins of 17.8% and 11.3%, respectively. With the exception of a few companies, both the domestic and international Filter companies are conservatively capitalized.

**TABLE IX: SELECTED DOMESTIC FILTER COMPANIES<sup>(1)</sup>**

(US\$ in millions, except per share data)

Company	LTM			Stock Price 6/30/2019	% of 52-Week High	Market Cap	Total Enterprise Value <sup>(3)</sup>	TEV / LTM		Net Debt <sup>(4)</sup> EBITDA
	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin					Revenues	EBITDA	
3M Co. (MMM)	\$32,131	\$7,987	24.9%	\$173.34	78.9%	\$99,918	\$113,783	3.5x	14.2x	1.7x
Cantel Medical Corp. (CMD)	908	158	17.4	80.64	80.9	3,345	3,527	3.9	22.3	1.2
CECO Environmental Corp. (CECE)	349	31	8.9	9.59	97.9	336	404	1.2	12.9	2.2
Corning Inc. (GLW)	11,795	2,989	25.3	33.23	90.9	26,077	33,520	2.8	11.2	2.0
Crane Co. (CR)	3,369	592	17.6	83.44	83.3	4,997	5,861	1.7	9.9	1.3
Cummins Inc. (CMI)	24,294	3,862	15.9	171.34	99.7	26,983	29,164	1.2	7.6	0.2
Donaldson Company Inc. (DCI)	2,843	473	16.7	50.86	85.6	6,486	6,995	2.5	14.8	1.0
Eaton Corporation (ETN)	21,709	3,917	18.0	83.28	93.1	35,236	42,847	2.0	10.9	2.0
Entegris, Inc. (ENTG)	1,570	423	26.9	37.32	88.8	5,057	5,702	3.6	13.5	1.1
ESCO Technologies Inc. (ESE)	807	155	19.2	82.62	99.9	2,146	2,328	2.9	15.1	1.2
General Electric Co. (GE)	120,782	14,735	12.2	10.50	73.5	91,568	207,656	1.7	14.1	6.5
Honeywell International Inc. (HON)	38,618	8,720	22.6	174.59	98.4	127,056	133,384	3.5	15.3	0.8
Illinois Tool Works Inc. (ITW)	14,354	3,928	27.4	150.81	95.0	49,130	55,313	3.9	14.1	1.6
Lydall Inc. (LDL)	847	96	11.4	20.20	41.7	354	651	0.8	6.8	2.9
Parker Hannifin Corporation (PH)	14,320	2,554	17.8	170.01	88.0	21,810	25,948	1.8	10.2	1.5
Pentair, Inc. (PNR)	2,940	541	18.4	37.20	80.9	6,394	7,764	2.6	14.4	2.2
Tenneco Inc. (TEN)	15,637	1,304	8.3	11.09	23.1	897	6,827	0.4	5.2	4.3
Watts Water Technologies, Inc. (WTS)	1,584	246	15.5	93.18	99.0	3,165	3,402	2.1	13.8	0.9
Xylem Inc. (XYL)	5,255	943	17.9	83.64	99.1	15,050	17,390	3.3	18.4	2.5
<b>Median</b>			<b>17.8%</b>		<b>88.8%</b>			<b>2.5x</b>	<b>13.8x</b>	<b>1.6x</b>
<b>Mean</b>			<b>18.0</b>		<b>84.1</b>			<b>2.4</b>	<b>12.9</b>	<b>1.9</b>

(1) Source: S&P Capital IQ and JKC research.

(2) Revenues and EBITDA are for the latest twelve months as of 6/30/19.

(3) Total enterprise value is defined as market capitalization plus total debt less cash and cash equivalents.

(4) Net debt is defined as total debt less cash and cash equivalents.

**TABLE X: SELECTED INTERNATIONAL FILTER COMPANIES<sup>(1)</sup>**

(US\$ in millions, except per share data)

Company	LTM			Stock Price 6/30/2019	% of 52-Week High	Market Cap	Total Enterprise Value <sup>(3)</sup>	TEV / LTM		Net Debt <sup>(4)</sup> EBITDA
	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin					Revenues	EBITDA	
Ahlstrom-Munksjo Oyj (AMI)	\$2,986	\$245	8.2%	\$16.48	83.9%	\$1,900	\$3,159	1.1x	12.9x	4.9x
Alfa Laval AB (ALFA)	4,521	813	18.0	21.82	81.1	9,153	9,930	2.2	12.2	1.2
Amiad Filtration Systems Ltd (AFS)	114	8	7.3	2.87	81.9	65	82	0.7	9.8	1.7
Andritz AG (ANDR)	7,090	603	8.5	37.67	61.9	3,803	4,315	0.6	7.2	0.9
Asahi Kasei Corp. (3407)	20,136	3,021	15.0	10.66	65.1	14,784	17,124	0.9	5.7	0.9
Daikin Industries Ltd. (6367)	23,019	3,504	15.2	130.49	89.8	38,170	40,461	1.8	11.5	0.6
Denso Corp. (6902)	49,755	5,751	11.6	42.06	75.1	32,589	32,712	0.7	5.7	(0.3)
Faurecia SA (EO)	19,942	1,975	9.9	46.44	62.6	6,368	7,324	0.4	3.7	1.4
FLSmidth & Co. A/S (FLS)	2,886	260	9.0	45.27	70.1	2,263	2,578	0.9	9.9	1.6
GEA Group AG (GIA)	5,515	464	8.4	28.25	72.3	5,100	5,218	0.9	11.2	(0.7)
GUD Holdings Ltd. (GUD)	296	63	21.3	7.02	64.4	607	707	2.4	11.2	1.5
Hyflux Ltd. (600)	108	(246)	(227.8)	0.03	9.1	24	1,330	12.1	NM	NM
Ibiden Co., Ltd. (4062)	2,701	327	12.1	17.50	93.0	2,445	2,107	0.8	6.4	(1.0)
Johnson Matthey plc (JMAT)	13,654	904	6.6	42.30	88.0	8,126	9,215	0.7	10.2	1.2
NGK Insulators Ltd. (5333)	4,300	947	22.0	14.58	78.2	4,690	5,396	1.3	5.7	0.8
Nitto Denko Corp. (6988)	7,482	1,261	16.8	49.33	60.2	7,737	4,987	0.7	4.0	(2.0)
Porvair plc (PRV)	179	23	12.9	7.40	93.3	338	334	1.9	14.4	(0.2)
Sartorius AG (SRT)	1,863	492	26.4	182.64	93.9	13,260	14,611	7.8	29.7	2.4
Siemens AG (SIE)	95,735	10,642	11.1	119.30	86.4	94,688	129,084	1.3	12.1	3.0
Toray Industries Inc. (3402)	22,163	2,453	11.1	7.60	88.5	12,160	20,375	0.9	8.3	3.1
<b>Median</b>			<b>11.3%</b>		<b>79.7%</b>			<b>0.9x</b>	<b>9.9x</b>	<b>1.2x</b>
<b>Mean</b>			<b>1.2</b>		<b>74.9</b>			<b>2.0</b>	<b>10.1</b>	<b>1.1</b>

(1) Source: S&amp;P Capital IQ and JKC research.

(2) Revenues and EBITDA are for the latest twelve months as of 6/30/19.

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Valuation Trends over Time

Quarterly median TEV/LTM EBITDA valuation multiples have increased over last quarter levels for domestic companies and international companies. Annual multiples for domestic and international companies are generally at lower levels than last year at this time.

CHART IV: QTRLY MEDIAN TEV/LTM EBITDA VALUATION MULTIPLES<sup>(1)</sup>

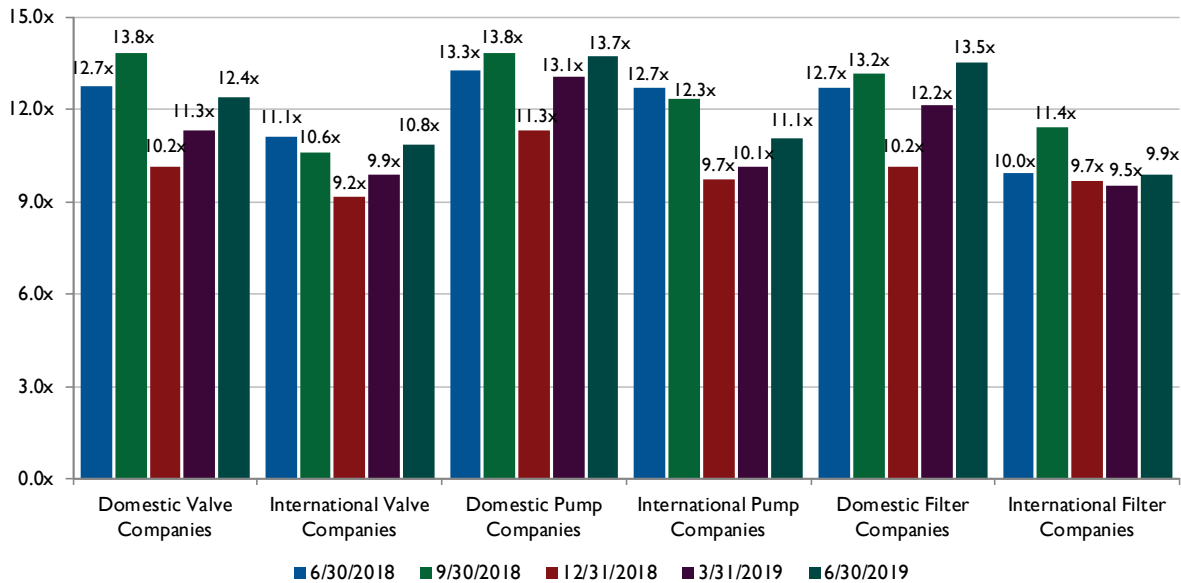
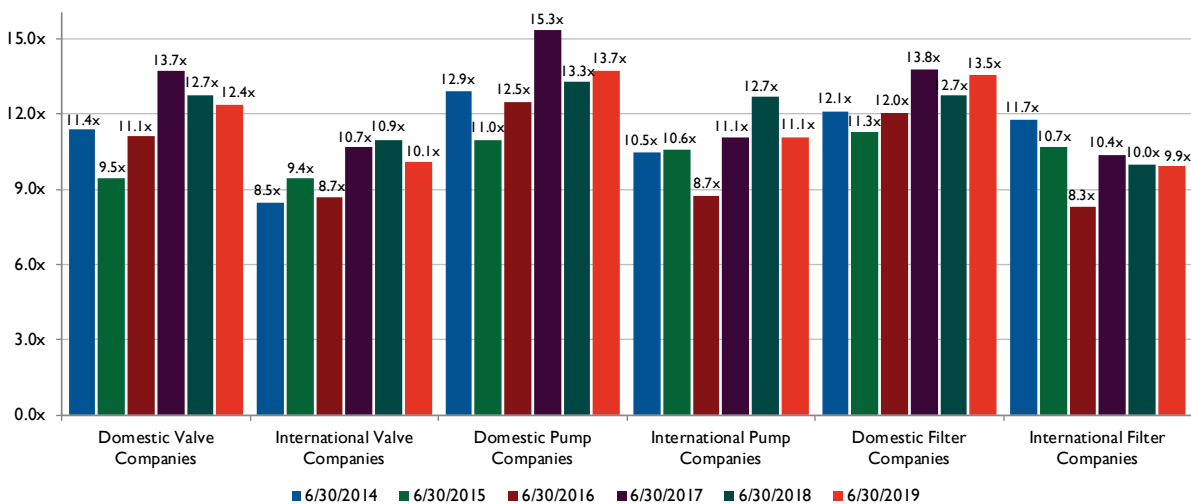


CHART V: ANNUAL MEDIAN TEV/LTM EBITDA VALUATION MULTIPLES<sup>(1)</sup>

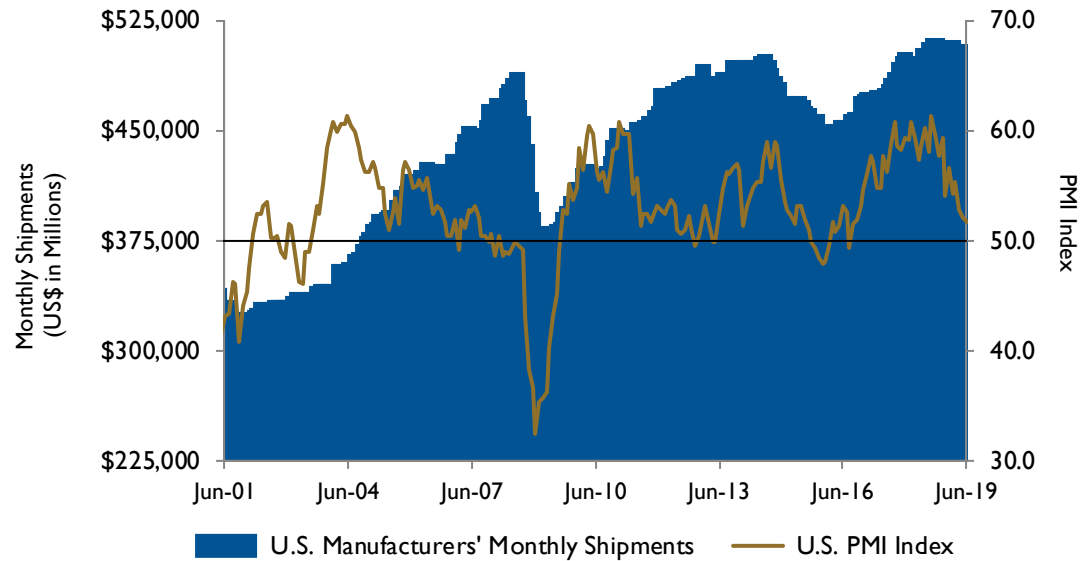


(1) Source: S&P Capital IQ and JKC research.

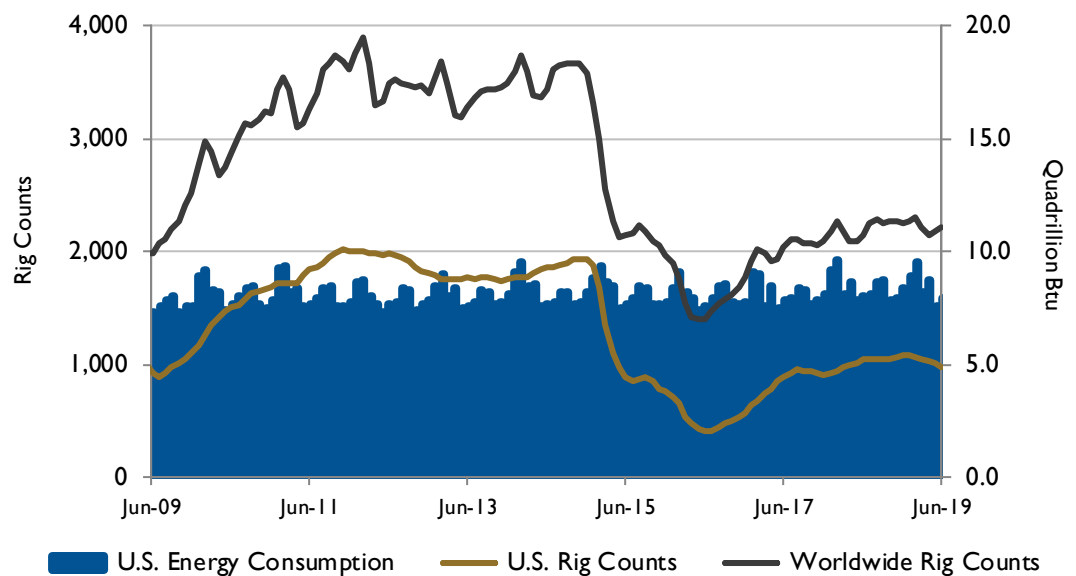
# Economic Indicators – Valves and Pumps<sup>(1)</sup>

BY DAVID A. KAKAREKA

**CHART VI: U.S. PMI INDEX<sup>(2)</sup> AND MANUFACTURING SHIPMENTS<sup>(3)</sup>**



**CHART VII: U.S. ENERGY CONSUMPTION<sup>(4)</sup> AND RIG COUNTS<sup>(5)</sup>**

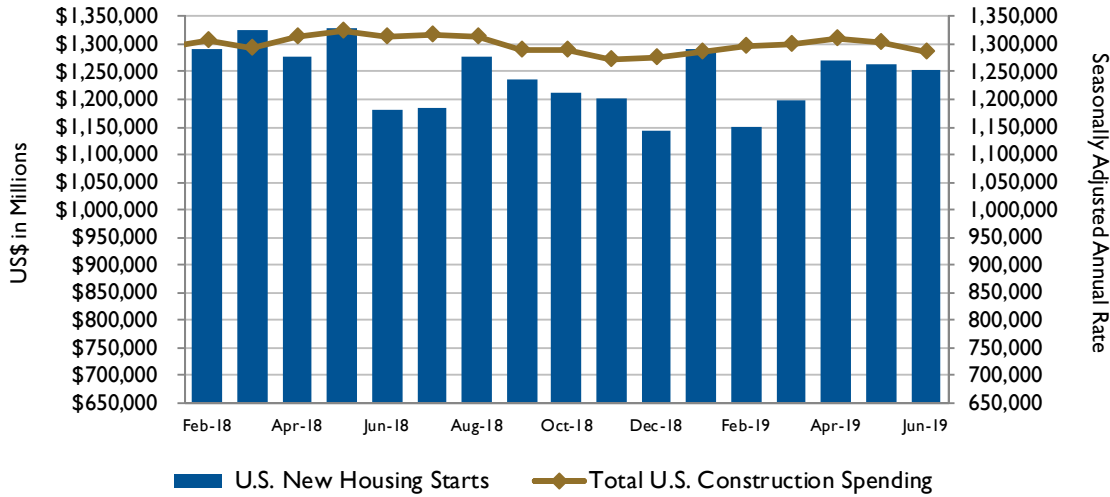


(1) Economic indicators used in Public Equity and Valuation Analysis section of this report.  
 (2) Source: Institute for Supply Management Manufacturing Report on Business®. A PMI Index above 50 represents expansion within the manufacturing sector compared with the prior month.  
 (3) Source: U.S. Census Bureau; Manufacturers' Shipments, Inventories and Orders Survey.  
 (4) Source: U.S. Energy Information Administration, Short-term Energy Outlook.  
 (5) Source: Baker Hughes Inc.

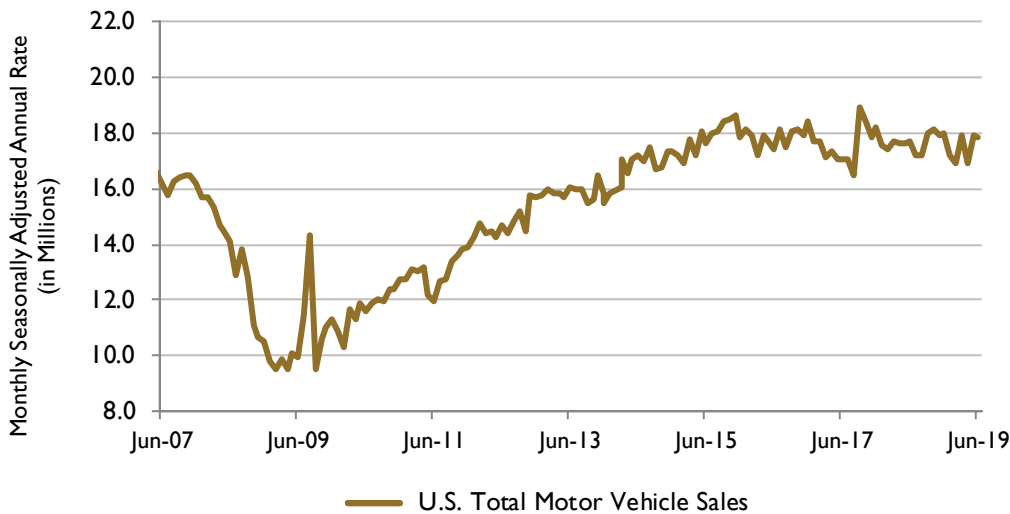
# Economic Indicators – Filters<sup>(1)</sup>

BY DAVID A. KAKAREKA

**CHART VIII: U.S. HOUSING STARTS AND CONSTRUCTION SPENDING<sup>(2)</sup>**



**CHART IX: U.S. MOTOR VEHICLE SALES<sup>(3)</sup>**



(1) Economic indicators used in Public Equity and Valuation Analysis section of this report.  
 (2) Source: U.S. Census Bureau; Manufacturing, Mining and Construction Statistics.  
 (3) Source: U.S. Department of Commerce, Bureau of Economic Analysis.

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## ABOUT JORDAN KNAUFF & COMPANY

Jordan Knauff & Company was founded in 2001 to undertake a distinct mission: to assemble and maintain a staff of top-notch investment banking personnel and offer their knowledge and experience to provide the best available investment banking services to middle-market companies, the entrepreneurs that lead them and the financial entities that transact with them. On a combined basis, over the course of their careers our employees have completed over 200 transactions as investors, owners, operators, buyers, sellers and investment bankers of middle-market businesses across a variety of industries. The majority of our firm's broad transaction experience has been with private companies owned by one shareholder, a partnership, a family or private equity investors.



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