# **FLOW CONTROL**

# Industry In-Sight

FIRST QUARTER 2019









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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.

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

Experience has taught us

## 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.

# 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 middlemarket 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

# **Building Products & Services**

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

# **Energy Logistics & Distribution**

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

# 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 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 and our main telephone number is (312) 254-5900.

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

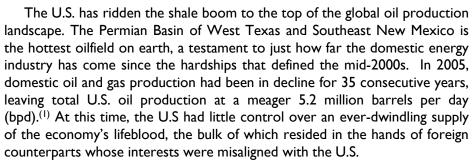
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# **Current Events / Trends**

BY G. COOK JORDAN, JR. C. HUTCH GREAVES

The Permian Basin is Ramping Up Production and is Forecasted to Produce More Oil Than Every OPEC Nation Except Saudi Arabia by 2023



Turn the page to today, and the U.S. is the world's leading oil producer mainly due to the shale revolution. (2) At the heart of this revolution is the shale-rich Permian Basin, one of the areas of new oil discoveries and increased production in the U.S. Last year, IHS Markit forecast that by 2023, total oil production in the region will reach 5.4 million bpd and the Permian Basin alone will produce more oil than every OPEC nation except Saudi Arabia.<sup>(3)</sup> An estimated \$308 billion in upstream spending and 41,000 new wells are expected to drive this growth, which could account for up to 60% of the growth in total global production between 2018 and 2023.(3) In the past 24 months ending March 2019, production in the Permian Basin has increased almost 85% to 4.1 million barrels of oil per day. (4) While the region's ability to maintain such growth through 2023 is subject to many factors, it is evident that production is accelerating. Production of both natural gas and natural gas liquids (NGLs) in the Permian Basin are also expected to double between 2018 and 2023, reaching 15 billion cubic feet per day and 1.7 million bpd, respectively.(3)

Life on the ground in the Permian Basin has been quite aptly described by The Wall Street Journal (WSJ) as a "fracking-related gold rush," a place where barbers can make up to \$180,000 per year cutting weather-trodden scalps, and the only bar in town with a patio can book tables for \$6,000.<sup>(5)</sup> The Permian Basin is a Big Oil playground, dominated by the industry's largest companies. Two such companies, Chevron Corporation and ExxonMobil, recently published production forecasts which highlight their intent in the region. After doubling production from the region in 2018, ExxonMobil expects to produce I million bpd in the Permian Basin by 2024. (6) In the next five years, Chevron plans to more than double its production in the Permian Basin to 900,000 barrels of oil a day. (7)

Smaller independent companies that pioneered the shale boom are losing ground to Big Oil. The figures above underline an industry-old trend which has now manifested in the shale game. In the face of challenge, small exploration companies engineer new ways to produce hydrocarbons, ultimately paving the way for Big Oil to move in. Equipped with new production techniques and economies of scale, Big Oil is capable of capturing the profitability that eludes smaller independent producers.<sup>(7)</sup>



Per Chevron's CEO Mike Wirth, "At times, we were criticized for not going faster. We were steadily building up the knowledge to do this well, not to do it fast." (7) Scale provides numerous benefits that allow Big Oil the advantage of profitable exploration and production in a relatively low oil price environment. Sheer size allows them to hedge a smaller proportion of their overall production relative to independents, thereby enhancing the returns of large players when prices jump. Scale also allows larger producers to avoid pipeline bottlenecks connected to key acreage which forces smaller companies to market its production at discounted prices. To highlight the leverage held by Chevron and ExxonMobil, the current land positions held by these two producers are larger in size than Rhode Island or Yosemite National Park. (7)

As the larger producers continue their shale expansion, many have gained favor with investors – in the past year Chevron's stock price has increased 14% and all of the largest oil companies have outperformed the S&P 500 even though crude prices have declined. With oil prices below \$60 per barrel, margins are simply too narrow for independent producers to consistently compete with the big players. (8) As the WSJ notes, "...[at today's prices], even a modest increase in the cost of borrowing is enough to wipe out any potential profits this year for some companies." (9)

Big Oil's competition, small and independent operators ("wildcatters"), face contrasting prospects. These wildcatters, who leveraged low interest rates after the Great Recession to pioneer the very technologies that catalyzed the shale boom, have been collectively losing money for nearly a decade. Per figures from Dealogic, the combined value of debt and equity issuances to shale companies has fallen nearly 60% over the last two years, from \$56.9 billion in 2016 to \$22.8 billion in 2018.<sup>(9)</sup> In addition, spending amongst smaller companies is poised to fall 11% in 2019.<sup>(7)</sup>

While smaller companies grapple with margins, it is clear that Big Oil has no plans to take its foot off the gas in the Permian Basin. In the ten months since IHS Markit predicted Permian Basin production of 5.4 million bpd by 2023, production has already increased 25%, and the industry is eyeing another milestone. Per CNN Business, the U.S. is set to surpass Saudi Arabia as the world's leading exporter of oil, natural gas liquids, and petroleum products later this year. (10) This has important national security implications. As the U.S. will continue to import oil to power its economy, it is no longer as beholden to foreign oil as it once was.

<sup>1)</sup> Forbes, "How The Shale Boom Turned The World Upside Down," April 21, 2017.

U.S. Energy Information Administration, "The United States is Now the Largest Global Crude Oil Producer," September 12, 2018.

IHS Markit Outlook, "Stunning' Permian Basin Oil Production to More than Double from 2017-2023, Exceeding Expectations," June 13, 2018.

<sup>4)</sup> U.S. Energy Information Administration, "Drilling Activity Report," March 2019.

The Wall Street Journal, "In This Oil Boom Town, Even a Barber Can Make \$180,000," March 1, 2019.

ExxonMobil, "ExxonMobil to Increase, Accelerate Permian Output to 1 Million Barrels per Day by 2024," March 5, 2019.

<sup>7)</sup> The Wall Street Journal, "Chevron, ExxonMobil Tighten Their Grip on Fracking," March 5, 2019.

<sup>8)</sup> The Wall Street Journal, "Oil Giants Start to Dominate U.S. Shale Boom," November 15, 2018.

The Wall Street Journal, "Frackers Face Harsh Reality as Wall Street Backs Away," February 24, 2019.

<sup>10)</sup> CNN Business, "America is Set to Surpass Saudi Arabia in a 'Remarkable' Oil Milestone," March 21, 2019.



# 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: IQ 2019(1)

nnounced Date	Target	Acquirer(s)
2/28/2019	Hydreco Hydraulics Ltd.	Duplomatic Oleodinamica SpA
2/25/2019	Flow Control Division of The Weir Group plc	First Reserve Corporation
2/13/2019	TECOFI France	Bpifrance, Garibaldi Participations
2/11/2019	Precision Flow Systems	Ingersoll-Rand plc
1/31/2019	Toolfac Oy	Hanza Holding AB
1/8/2019	Megawatt Machine Services, LLC	Anvil International, LLC

# TABLE III: SELECTED PUMP M&A TRANSACTIONS: IQ 2019(1)

Announced Date	Target	Acquirer(s)
2/28/2019	Hydreco Hydraulics Ltd.	Duplomatic Oleodinamica SpA
2/22/2019	Rheinhütte Pumpen GmbH	ITT Inc.
2/25/2019	Flow Control Division of The Weir Group plc	First Reserve Corporation
2/14/2019	Stancor Pumps Inc.	BJM Pumps, LLC / Industrial Flow Solution
2/11/2019	Precision Flow Systems	Ingersoll-Rand plc
2/8/2019	Systecon, Inc.	ENGIE North America Inc.
1/29/2019	Zehnder Pumpen GmbH	Société Française d'Assainissement
1/4/2019	Industrie Pumpen Vertriebs GmbH	Atlas Copco AB
1/2/2019	Milan Supply Company	Franklin Electric Co., Inc.

# TABLE IV: SELECTED FILTER M&A TRANSACTIONS: IQ 2019(1)

nnounced Date	Target	Acquirer(s)
3/17/2019	APEL International Inc./ Milton Manufacturing, Inc.	Pleatco LLC
3/7/2019	FRAM Group Holdings Inc.	Trico Products Corporation
2/28/2019	Aget Manufacturing Company	Madison Street Holdings LLC
2/11/2019	Filter and Coating Technology, Inc.	Ohio Transmission Corporation
2/8/2019	U.S. Water Services, Inc.	Kurita Water Industries Ltd.
2/4/2019	MIOX Corporation	Industrie De Nora SpA
1/7/2019	Aquion, Inc.	Pentair plc
1/7/2019	Enviro Water Solutions, Inc.	Pentair plc
1/2/2019	Biocon I, LLC	Nephros, Inc.

<sup>(</sup>I) 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

Reaching an annual

barrels per day, U.S.

petroleum products

set a record high in

2018 for the 16th

consecutive year.

exports of total

average of 5.6 million

The JKC Valve Stock Index was down 2.9% over the last 12 months, while the broader S&P 500 Index was up 9.1%.

Primary energy consumption reached a record high of 101.3 quadrillion Btus in the U.S. in 2018, up 4% from 2017 and 0.3% above the previous record set in 2007. Consumption of fossil fuels grew by 4% and accounted for 80% of U.S. total energy consumption. Natural gas rose 10% over 2017 and reached a record high. Driven by the addition of new wind and solar power plants, renewable energy consumption hit a record high, rising 3% during the year. Petroleum consumption reached 20.5 million barrels per day last year, its highest level since 2007, due to increased use in the industrial sector.<sup>(1)</sup>

Reaching an annual average of 5.6 million barrels per day, U.S. exports of total petroleum products set a record high in 2018 for the 16th consecutive year. The three largest petroleum product exports last year were distillate, propane and motor gasoline. Propane exports were greater than gasoline exports for the third consecutive year, with Asia being three of the top five destinations. Propane is used in many Asian countries as a building block for manufacturing chemicals and plastics.

On Wall Street, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite gained 0.1%, 1.8% and 2.6%, respectively, in March. Positive developments on the trade war with China, The Federal Reserve Bank's decision to keep interest rates unchanged and consistent performance by technology companies were major issues for the markets. For the quarter, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite rallied 11.2%, 13.1% and 16.5%, marking the S&P 500 Index's best quarterly rise since the third quarter of 2009.

# CHART I: JKC VALVE STOCK INDEX(2)



<sup>(</sup>I) See Economic Indicators section of this report for more detailed information on these indicators.

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<sup>(2)</sup> 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 March 31, 2019, domestic and international Valve companies were trading at median total enterprise value / latest twelve months ("TEV/LTM") EBITDA multiples of 11.2x and 9.9x, respectively, while both groups have median EBITDA margins of 17.4% and 12.8%, respectively. The median stock price as a percentage of the 52-week high for both groups is 85% and 73%, 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(1)

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

				Stock % of						
		LTM		Price	52-Week	Market Cap	Enterprise	TEV / LTM		Net Debt <sup>(4)</sup> /
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	3/31/2019	High		Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Badger Meter Inc. (BMI)	\$434	\$65	15.0%	\$55.64	90.4%	\$1,620	\$1,625	3.7x	24.9x	0.1x
CIRCOR International Inc. (CIR)	1,171	122	10.5	32.60	62.4	648	1,367	1.2	11.2	5.6
Crane Co. (CR)	3,378	585	17.3	84.62	84.5	5,067	5,676	1.7	9.7	1.5
Curtiss-Wright Corp. (CW)	2,443	501	20.5	113.34	79.0	4,854	5,340	2.2	10.7	1.5
Dover Corp. (DOV)	7,079	1,235	17.4	93.80	95.1	13,621	16,389	2.3	13.3	2.6
Emerson Electric Co. (EMR)	18,061	3,717	20.6	68.47	85.9	42,083	46,836	2.6	12.6	1.3
Flowserve Corp. (FLS)	3,803	493	13.0	45.14	79.4	5,913	6,794	1.8	13.8	2.1
General Electric Co. (GE)	121,113	15,345	12.7	9.99	64.1	87,009	201,486	1.7	13.1	6.2
Honeywell International Inc. (HON)	40,294	8,827	21.9	158.92	94.8	115,753	121,242	3.0	13.7	0.7
ITT Corporation (ITT)	2,751	479	17.4	58.00	92.0	5,069	4,636	1.7	9.7	(0.7)
Mueller Water Products, Inc. (MWA)	931	164	17.6	10.04	79.7	1,588	1,837	2.0	11.2	1.9
Parker Hannifin Corporation (PH)	14,456	2,628	18.2	171.62	88.8	22,202	26,577	1.8	10.1	1.6
Schlumberger Limited (SLB)	32,865	6,752	20.5	43.57	57.8	60,387	75,861	2.3	11.2	2.1
SPX Flow Inc. (FLOW)	2,091	256	12.2	31.90	58.9	1,357	1,923	0.9	7.5	2.5
TechnipFMC plc (FTI)	12,341	1,512	12.3	23.52	68.4	10,577	9,298	0.8	6.1	0.1
Watts Water Technologies, Inc. (WTS)	1,575	243	15.4	80.82	86.6	2,749	2,899	1.8	11.9	1.0
Xylem Inc. (XYL)	5,227	943	18.0	79.04	95.9	14,192	16,218	3.1	17.2	2.5
Median			17.4%		84.5%			1.8x	11.2x	1.6x
Mean			16.5		80.2			2.0	12.2	1.9

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

(2) Revenues and EBITDA are for the latest twelve months as of 3/31/19.

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

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



# TABLE VI: SELECTED INTERNATIONAL VALVE COMPANIES(1)

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

				Stock	% of		Total			
	LTM		Price	52-Week	Market	Enterprise	TEV /	LTM	Net Debt <sup>(4)</sup> /	
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	3/31/2019	High	Сар	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Aalberts Industries NV (AALB)	\$3,096	\$459	14.8%	\$34.60	69.8%	\$3,826	\$4,514	1.5x	9.8x	1.5x
Alfa Laval AB (ALFA)	4,384	789	18.0	23.01	85.4	9,651	10,436	2.4	13.2	1.0
Georg Fischer AG (FI-N)	4,619	528	11.4	911.01	65.2	3,729	4,017	0.9	7.6	0.5
Hisaka Works Ltd. (6247)	276	30	11.0	8.27	73.1	247	121	0.4	4.0	(4.7)
Hitachi Ltd. (6501)	85,530	8,052	9.4	32.35	82.1	31,240	44,329	0.5	5.5	(0.1)
IMI plc (IMI)	2,483	449	18.1	12.48	75.6	3,378	3,900	1.6	8.7	1.1
Kitz Corp. (6498)	1,228	157	12.8	7.32	72.3	698	889	0.7	5.7	1.1
KSB Aktiengesellschaft (KSB)	2,529	152	6.0	329.97	60.9	565	554	0.2	3.7	(1.3)
Kubota Corp. (6326)	16,698	2,263	13.6	14.43	79.4	17,785	24,090	1.4	10.6	2.4
Lupatech S.A. (LUPA3)	33	(37)	(113.3)	0.47	65.5	8	65	2.0	NM	(1.2)
Metso Corp. (METSO)	3,561	473	13.3	34.41	95.0	5,164	5,369	1.5	11.4	0.6
Okano Valve Manufacturing Co. (6492)	68	3	5.0	18.86	76.1	33	34	0.5	9.9	(2.1)
Saint Gobain (SGO)	46,884	5,525	11.8	36.26	70.2	19,577	29,144	0.6	5.3	1.7
SMC Corp. (6273)	5,380	1,854	34.5	374.79	91.1	25,193	20,567	3.8	11.1	(2.7)
Spirax-Sarco Engineering plc (SPX)	1,502	447	29.8	93.63	85.5	6,893	7,202	4.8	16.1	0.7
The Weir Group PLC (WEIR)	3,190	528	16.6	20.29	66.8	5,254	6,746	2.1	12.8	2.8
Velan, Inc. (VLN)	363	9	2.6	6.83	50.8	148	124	0.3	13.3	(2.4)
Median			12.8%		73.1%			I.4x	9.9x	0.6x
Mean			6.8		74.4			1.5	9.3	

<sup>(1)</sup> Source: S&P Capital IQ and JKC research.
(2) Revenues and EBITDA are for the latest twelve months as of 3/31/19.
(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 U.S. economy

annual rate of 3.2%

for the first quarter

expanded at an

of the year.

The JKC Pump Stock Index was down 9.9% over the last twelve months, while the S&P 500 Index was up 9.1% over the same time period.

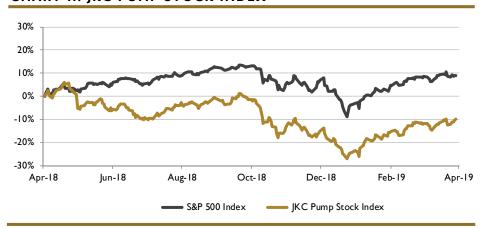
The Institute for Supply Management's Purchasing Managers' Index (PMI) increased 1.1 percentage points to 55.3% in March. Comments from the survey panel reflected expanding business strength supported by gains in new orders and employment. The New Orders Index gained 1.9 percentage points rising to 57.4%, while the Employment Index gained 5.2 percentage points reaching 57.5%, which is above the index's average for the past year. The Export Orders Index fell to 51.7%, its lowest level in two and a half years. (1)

Growth of global manufacturing production remained weak in March according to the latest J.P. Morgan Global Manufacturing PMI. With a reading of 50.6%, the index was unchanged from February and is slightly above the neutral 50.0% mark. Overall, new orders stagnated and international trade flows declined. On a regional basis, PMI readings were above 50% in China, the United States, Brazil and the United Kingdom. Below 50% readings were seen in the Eurozone, Japan and South Korea.

The U.S. economy expanded at an annual rate of 3.2% for the first quarter of the year. The growth was boosted by exports which rose 3.7%, an increase in state and local government spending which rose 3.9%, and higher private inventory investment. Consumer spending slowed from 2.5% in the fourth quarter of last year to 1.2%. Business spending on software, research and development, equipment and structures rose at a 2.7% rate.

On Wall Street, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite gained 0.1%, 1.8% and 2.6%, respectively, in March. Positive developments on the trade war with China, The Federal Reserve Bank's decision to keep interest rates unchanged and consistent performance by technology companies were major issues for the markets. For the quarter, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite rallied 11.2%, 13.1% and 16.5%, marking the S&P 500 Index's best quarterly rise since the third quarter of 2009.

# CHART II: JKC PUMP STOCK INDEX(2)



<sup>(</sup>I) See Economic Indicators section of this report for more detailed information on these indicators.

<sup>(2)</sup> 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 13.2x and 10.1x, respectively, as of March 31, 2019. As you can see, both groups are similarly leveraged with a median net debt/LTM EBITDA ratio of 1.9x for domestic Pump companies compared to 0.7x 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(1)

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

				Stock	% of		Total			
		LTM		Price	52-Week High	Market	Enterprise	TEV /	LTM	Net Debt <sup>(4)</sup> /
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	3/31/2019		Cap	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Ampco-Pittsburgh Corp. (AP)	\$421	\$10	2.4%	\$3.30	29.1%	\$41	\$105	0.2x	10.5x	7.3x
Baker Hughes Inc. (BHGE)	23,093	2,745	11.9	27.72	73.4	14,273	35,325	1.5	12.9	1.8
Colfax Corporation (CFX)	3,794	498	13.1	29.68	80.1	3,483	4,644	1.2	9.3	8.3
Crane Co. (CR)	3,378	585	17.3	84.62	84.5	5,067	5,676	1.7	9.7	1.5
Curtiss-Wright Corp. (CW)	2,443	501	20.5	113.34	79.0	4,854	5,340	2.2	10.7	1.5
Danaher Corp. (DHR)	20,078	4,840	24.1	132.02	99.6	94,486	103,451	5.2	21.4	1.4
Dover Corp. (DOV)	7,079	1,235	17.4	93.80	95.1	13,621	16,389	2.3	13.3	2.6
Energy Recovery, Inc. (ERII)	81	18	21.9	8.73	85.2	472	391	4.9	22.1	(4.3)
Flowserve Corp. (FLS)	3,803	493	13.0	45.14	79.4	5,913	6,794	1.8	13.8	2.1
Franklin Electric Co. Inc. (FELE)	1,293	159	12.3	51.09	91.9	2,368	2,518	1.9	15.8	1.2
General Electric Co. (GE)	121,113	15,345	12.7	9.99	64.1	87,009	201,486	1.7	13.1	6.2
Gorman-Rupp Co. (GRC)	415	60	14.4	33.94	88.7	886	840	2.0	14.1	(0.8)
Graco Inc. (GGG)	1,652	468	28.4	49.52	99.8	8,196	8,341	5.0	17.8	0.4
IDEX Corp. (IEX)	2,494	665	26.7	151.74	96.1	11,501	11,883	4.8	17.9	0.7
Illinois Tool Works Inc. (ITW)	14,576	3,997	27.4	143.53	89.6	46,923	52,803	3.6	13.2	1.5
Ingersoll-Rand Co. Ltd. (IR)	15,860	2,361	14.9	107.95	99.5	26,142	29,372	1.9	12.4	1.8
ITT Corporation (ITT)	2,751	479	17.4	58.00	92.0	5,069	4,636	1.7	9.7	(0.7)
National Oilwell Varco, Incorporated (NOV)	8,598	853	9.9	26.64	54.3	10,215	11,569	1.3	13.6	2.4
Pentair, Inc. (PNR)	2,921	546	18.7	44.51	61.0	7,641	8,354	2.9	15.3	2.5
Roper Technologies Inc. (ROP)	5,276	1,816	34.4	341.97	99.8	35,431	40,008	7.6	22.0	2.4
Schlumberger Limited (SLB)	32,865	6,752	20.5	43.57	57.8	60,387	75,861	2.3	11.2	2.1
SPX Flow Inc. (FLOW)	2,091	256	12.2	31.90	58.9	1,357	1,923	0.9	7.5	2.5
Standex International Corp. (SXI)	884	126	14.2	73.40	64.3	929	1,126	1.3	8.9	1.6
United Technologies Corp. (UTX)	69,624	11,875	17.1	128.89	89.4	111,146	152,804	2.2	12.9	3.5
Weatherford International Ltd. (WFT)	5,667	635	11.2	0.70	18.6	700	8,125	1.4	12.8	12.5
Xylem Inc. (XYL)	5,227	943	18.0	79.04	95.9	14,192	16,218	3.1	17.2	2.5
Median			17.2%		84.8%			2.0x	13.2x	1.9x
Mean			17.4		78.0			2.6	13.8	2.5

<sup>(</sup>I) Source: S&P Capital IQ and JKC research.

<sup>(2)</sup> Revenues and EBITDA are for the latest twelve months as of 3/31/19.

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

<sup>(4)</sup> Net debt is defined as total debt less cash and cash equivalents.



# TABLE VIII: SELECTED INTERNATIONAL PUMP COMPANIES(1)

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

				Stock	% of		Total			
	LTM		Price	52-Week	Market	Enterprise	TEV /	LTM	Net Debt <sup>(4)</sup> /	
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	3/31/2019	High	Сар	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Alfa Laval AB (ALFA)	\$4,384	\$789	18.0%	\$23.01	85.4%	\$9,651	\$10,436	2.4x	13.2x	1.0x
Andritz AG (ANDR)	6,771	558	8.2	42.92	71.5	4,334	4,607	0.7	8.3	0.9
DMW Corp. (6365)	162	20	12.1	19.40	86.0	84	19	0.1	1.0	(3.6)
Ebara Corp. (6361)	4,595	436	9.5	28.16	71.7	2,791	2,532	0.6	5.8	(0.6)
FLSmidth & Co. A/S (FLS)	2,819	257	9.1	43.22	64.1	2,155	2,447	0.9	9.5	1.2
Gevelot SA (ALGEV)	105	12	11.1	203.14	83.8	156	(26)	NM	NM	(15.2)
GUD Holdings Ltd. (GUD)	299	64	21.3	8.47	76.7	732	834	2.8	13.1	1.6
Hyundai Heavy Industries Co. Ltd. (A009540)	11,192	П	0.1	104.64	81.2	7,399	8,108	0.7	NM	NM
John Wood Group plc (WG)	10,232	576	5.6	6.61	63.3	4,429	6,067	0.6	10.5	2.8
Kirloskar Brothers Ltd. (500241)	429	23	5.4	2.36	48.9	187	225	0.5	9.7	1.8
KSB Aktiengesellschaft (KSB)	2,529	152	6.0	329.97	60.9	565	554	0.2	3.7	(1.3)
Kubota Corp. (6326)	16,698	2,263	13.6	14.43	79.4	17,785	24,090	1.4	10.6	2.4
Metso Corp. (METSO)	3,561	473	13.3	34.41	95.0	5,164	5,369	1.5	11.4	0.6
Nikkiso Co. Ltd. (6376)	1,492	151	10.1	11.66	83.0	830	1,640	1.1	10.9	6.1
Pfeiffer Vacuum Technology AG (PFV)	740	124	16.7	152.41	85.7	1,504	1,449	2.0	11.7	(0.3)
SKF AB (SKF B)	9,241	1,272	13.8	16.65	80.5	7,580	8,380	0.9	6.6	0.7
Spirax-Sarco Engineering plc (SPX)	1,502	447	29.8	93.63	85.5	6,893	7,202	4.8	16.1	0.7
Sulzer, Ltd. (SUN)	3,380	327	9.7	97.53	74.7	3,311	3,563	1.1	10.9	0.7
Teikoku Electric Mfg.Co.,Ltd. (6333)	194	30	15.5	10.14	62.6	200	124	0.6	4.1	(2.3)
The Weir Group PLC (WEIR)	3,190	528	16.6	20.29	66.8	5,254	6,746	2.1	12.8	2.8
Torishima Pump Manufacturing Co. Ltd. (6363)	454	35	7.8	8.70	84.6	237	265	0.6	7.5	0.5
Tsurumi Manufacturing Co. Ltd. (6351)	385	51	13.3	17.90	89.3	448	332	0.9	6.5	(2.4)
Median			11.6%		80.0%			0.9x	10.1x	0.7x
Mean			12.1		76.4			1.3	9.2	

<sup>(1)</sup> Source: S&P Capital IQ and JKC research.
(2) Revenues and EBITDA are for the latest twelve months as of 3/31/19.
(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 Filter Watch

Housing starts fell

consecutive month

in March and have

fallen in six of the

for the second

previous seven

months.

The JKC Filter Stock Index was down 3.0% over the last twelve months, while the S&P 500 Index was up 9.1%.

Easing home prices and lower mortgage rates spurred a 4.5% jump in new home sales during March. While existing sales were softer during the month, the housing market appears to be improving as the spring selling season gets underway. Sales at lower price points continue to strengthen. During March, an estimated 50% of sales were priced below \$300,000.

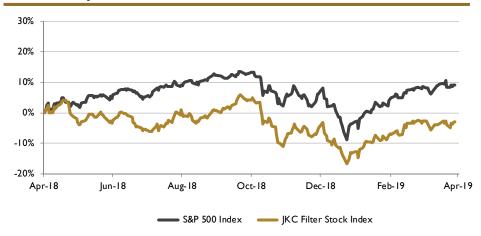
Housing starts fell for the second consecutive month in March and have fallen in six of the previous seven months. Permits show a similar but somewhat distressing trend, falling 1.7% in March, following declines of 2.0% and 0.7% in February and January, respectively.<sup>(1)</sup>

U.S. auto sales fell 3.1% in March, the third decline for the industry in as many months. Automakers are struggling to maintain a record pace that has seen annual sales totals top 17 million in every year since 2014. American Honda posted record March car and light-truck deliveries at the Honda division. Overall, sales rose 4.1% at Honda and 6.4% at Acura. Sales also rose 1.7% at Hyundai, 10% at Kia and 6% at Subaru, all helped by expanded light-truck lineups.

Sales at FCA US fell 7.3%, its second straight monthly decline. Toyota Motor Corporation extended its monthly losing streak to five. General Motors, down an estimated 8.3%, is looking for its first gain of 2019. Volume dropped 5.2% at Ford Motor Company, with car sales falling 27%.

On Wall Street, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite gained 0.1%, 1.8% and 2.6%, respectively, in March. Positive developments on the trade war with China, The Federal Reserve Bank's decision to keep interest rates unchanged and consistent performance by technology companies were major issues for the markets. For the quarter, the Dow Jones Industrial Average, the S&P 500 Index and the NASDAQ Composite rallied 11.2%, 13.1% and 16.5%, marking the S&P 500 Index's best quarterly rise since the third quarter of 2009.

## CHART III: JKC FILTER STOCK INDEX(2)



<sup>(</sup>I) See Economic Indicators section of this report for more detailed information on these indicators.

<sup>(2)</sup> 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 March 31, 2019, domestic and international Filter companies (listed in Table IX and Table X, respectively) were trading at medians of 12.1x and 9.5x, respectively, of TEV/LTM EBITDA with median LTM EBITDA margins of 18.0% and 11.4%, respectively. With the exception of a few companies, both the domestic and international Filter companies are conservatively capitalized.

TABLE IX: SELECTED DOMESTIC FILTER COMPANIES(1)

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

				Stock	% of		Total			Net Debt <sup>(4)</sup> /
		LTM		Price	52-Week	Market	Enterprise	TEV /	LTM	
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	3/31/2019	High	Сар	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
3M Co. (MMM)	\$32,350	\$9,061	28.0%	\$207.78	93.7%	\$119,660	\$131,207	4.1x	14.5×	1.5x
Cantel Medical Corp. (CMD)	896	160	17.9	66.89	51.1	2,777	2,944	3.3	18.4	1.0
CECO Environmental Corp. (CECE)	349	31	8.7	7.20	78.4	252	297	0.9	9.7	2.2
Corning Inc. (GLW)	11,602	2,983	25.7	33.10	90.5	25,991	32,028	2.8	10.7	1.7
Crane Co. (CR)	3,378	585	17.3	84.62	84.5	5,067	5,676	1.7	9.7	1.5
Cummins Inc. (CMI)	24,205	3,736	15.4	157.87	91.7	24,776	26,638	1.1	7.1	0.3
Donaldson Company Inc. (DCI)	2,830	472	16.7	50.06	84.2	6,390	6,916	2.4	14.6	1.1
Eaton Corporation (ETN)	21,663	3,906	18.0	80.56	90.1	34,175	41,321	1.9	10.6	1.9
Entegris, Inc. (ENTG)	1,574	439	27.9	35.69	88.8	4,836	5,293	3.4	12.1	1.5
ESCO Technologies Inc. (ESE)	800	150	18.7	67.03	93.8	1,737	1,916	2.4	12.8	1.2
General Electric Co. (GE)	121,113	15,345	12.7	9.99	64. I	87,009	201,486	1.7	13.1	6.2
Honeywell International Inc. (HON)	40,294	8,827	21.9	158.92	94.8	115,753	121,242	3.0	13.7	0.7
Illinois Tool Works Inc. (ITW)	14,576	3,997	27.4	143.53	89.6	46,923	52,803	3.6	13.2	1.5
Lydall Inc. (LDL)	812	90	11.1	23.46	47.4	411	686	0.8	7.6	3.3
Parker Hannifin Corporation (PH)	14,456	2,628	18.2	171.62	88.8	22,202	26,577	1.8	10.1	1.6
Pentair, Inc. (PNR)	2,921	546	18.7	44.51	61.0	7,641	8,354	2.9	15.3	2.5
Tenneco Inc. (TEN)	13,666	1,140	8.3	22.16	36.8	1,789	6,913	0.5	6.1	4.9
Watts Water Technologies, Inc. (WTS)	1,575	243	15.4	80.82	86.6	2,749	2,899	1.8	11.9	1.0
Xylem Inc. (XYL)	5,227	943	18.0	79.04	95.9	14,192	16,218	3.1	17.2	2.5
Median			18.0%		88.8%			2.4x	12.1x	1.5x
Mean			18.2		79.6			2.3	12.0	2.0

<sup>(</sup>I) Source: S&P Capital IQ and JKC research.

<sup>(2)</sup> Revenues and EBITDA are for the latest twelve months as of 3/31/19.

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

<sup>(4)</sup> Net debt is defined as total debt less cash and cash equivalents.



# TABLE X: SELECTED INTERNATIONAL FILTER COMPANIES(1)

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

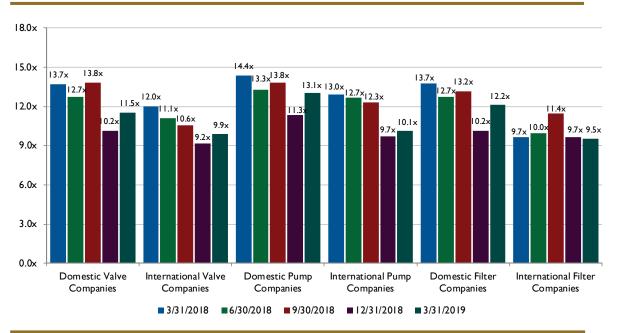
				Stock	% of	% of				Net Debt <sup>(4)</sup> /
		LTM		Price	52-Week	Market	Enterprise	TEV / LTM		
Company	Revenues <sup>(2)</sup>	EBITDA <sup>(2)</sup>	Margin	3/31/2019	High	Сар	Value <sup>(3)</sup>	Revenues	EBITDA	EBITDA
Ahlstrom-Munksjo Oyj (AMI)	\$2,736	\$248	9.1%	\$15.33	77.2%	\$1,767	\$2,918	l.lx	11.8x	5.0x
Alfa Laval AB (ALFA)	4,384	789	18.0	23.01	85.4	9,651	10,436	2.4	13.2	1.0
Amiad Filtration Systems Ltd (AFS)	116	9	7.9	2.14	59.6	49	66	0.6	7.1	1.5
Andritz AG (ANDR)	6,771	558	8.2	42.92	71.5	4,334	4,607	0.7	8.3	0.9
Asahi Kasei Corp. (3407)	19,352	2,938	15.2	10.31	64.7	14,389	17,430	0.9	5.9	0.7
Daikin Industries Ltd. (6367)	22,049	3,326	15.1	117.05	82.8	34,235	35,500	1.6	10.7	0.6
Denso Corp. (6902)	48,632	5,637	11.6	38.96	71.5	30,253	30,251	0.6	5.4	(0.3)
Faurecia SA (EO)	19,669	1,948	9.9	42.07	48.7	5,768	6,711	0.3	3.4	0.3
FLSmidth & Co. A/S (FLS)	2,819	257	9.1	43.22	64.1	2,155	2,447	0.9	9.5	1.2
GEA Group AG (GIA)	5,419	381	7.0	26.34	67.6	4,754	4,726	0.9	12.4	0.3
GUD Holdings Ltd. (GUD)	299	64	21.3	8.47	76.7	732	834	2.8	13.1	1.6
Hyflux Ltd. (600)	110	(248)	(225.7)	0.03	7.6	20	1,326	12.1	NM	NM
Ibiden Co., Ltd. (4062)	2,716	342	12.6	15.18	89.6	2,121	1,845	0.7	5.4	(1.1)
Johnson Matthey plc (JMAT)	19,211	897	4.7	40.92	81.1	7,855	9,212	0.5	10.3	1.5
NGK Insulators Ltd. (5333)	4,164	932	22.4	14.51	75.5	4,669	5,294	1.3	5.7	0.6
Nitto Denko Corp. (6988)	7,458	1,310	17.6	52.48	63.5	8,331	5,878	0.8	4.5	(2.0)
Porvair plc (PRV)	168	21	12.4	7.16	97.9	327	318	1.9	15.3	(0.4)
Sartorius AG (SRT)	1,758	457	26.0	152.64	97.5	11,087	12,400	7.1	27.1	2.3
Siemens AG (SIE)	93,532	9,945	10.6	107.87	79.2	85,753	114,748	1.2	11.5	3.1
Toray Industries Inc. (3402)	21,337	2,405	11.3	6.38	68.3	10,206	18,247	0.9	7.6	3.0
Median			11.4%		73.5%			0.9x	9.5x	0.9x
Mean			1.2		71.5			2.0	9.9	1.0

<sup>(1)</sup> Source: S&P Capital IQ and JKC research.
(2) Revenues and EBITDA are for the latest twelve months as of 3/31/19.
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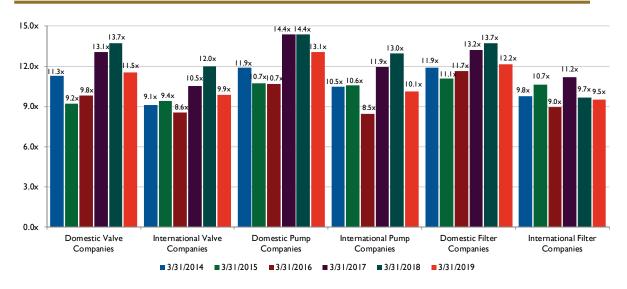
## Valuation Trends over Time

Quarterly median TEV/LTM EBITDA valuation multiples have generally 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(1)



## CHART V: ANNUAL MEDIAN TEV/LTM EBITDA VALUATION MULTIPLES(1)



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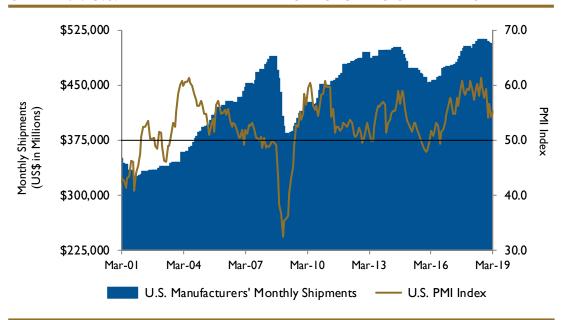
<sup>(</sup>I) Source: S&P Capital IQ and JKC research.



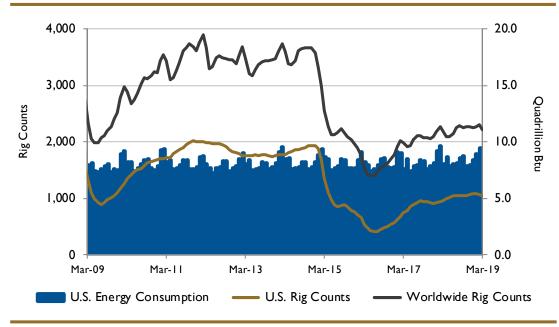
# Economic Indicators — Valves and Pumps(1)

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(4) AND RIG COUNTS(5)



<sup>(</sup>I) Economic indicators used in Public Equity and Valuation Analysis section of this report.

<sup>(2)</sup> 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.

<sup>(3)</sup> Source: U.S. Census Bureau; Manufacturers' Shipments, Inventories and Orders Survey.

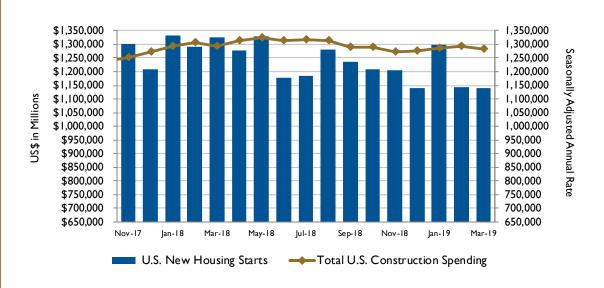
<sup>(4)</sup> Source: U.S. Energy Information Administration, Short-term Energy Outlook.

<sup>(5)</sup> Source: Baker Hughes Inc.

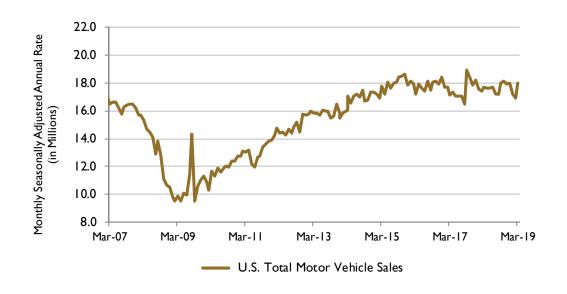
# Economic Indicators — Filters(1)

BY DAVID A. KAKAREKA

# CHART VIII: U.S. HOUSING STARTS AND CONSTRUCTION SPENDING(2)



# CHART IX: U.S. MOTOR VEHICLE SALES(3)



<sup>(1)</sup> Economic indicators used in Public Equity and Valuation Analysis section of this report.

<sup>(2)</sup> Source: U.S. Census Bureau; Manufacturing, Mining and Construction Statistics.

<sup>(3)</sup> 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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